

# Colleen M Niswender

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/483132/publications.pdf>

Version: 2024-02-01

182  
papers

8,424  
citations

61984

43  
h-index

54911

84  
g-index

187  
all docs

187  
docs citations

187  
times ranked

6898  
citing authors

#	ARTICLE	IF	CITATIONS
1	Synthesis and characterization of chiral 6-azaspiro[2.5]octanes as potent and selective antagonists of the M4 muscarinic acetylcholine receptor. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2022, 56, 128479.	2.2	1
2	Acute restraint stress redirects prefrontal cortex circuit function through mGlu5 receptor plasticity on somatostatin-expressing interneurons. <i>Neuron</i> , 2022, 110, 1068-1083.e5.	8.1	36
3	Exploration of group II metabotropic glutamate receptor modulation in mouse models of Rett syndrome and MECP2 Duplication syndrome. <i>Neuropharmacology</i> , 2022, 209, 109022.	4.1	3
4	Development of <b>VU6019650</b> : A Potent, Highly Selective, and Systemically Active Orthosteric Antagonist of the M <sub>5</sub> Muscarinic Acetylcholine Receptor for the Treatment of Opioid Use Disorder. <i>Journal of Medicinal Chemistry</i> , 2022, 65, 6273-6286.	6.4	8
5	mGlu1-mediated restoration of prefrontal cortex inhibitory signaling reverses social and cognitive deficits in an NMDA hypofunction model in mice. <i>Neuropsychopharmacology</i> , 2022, 47, 1826-1835.	5.4	4
6	Clinical and Preclinical Evidence for M1 Muscarinic Acetylcholine Receptor Potentiation as a Therapeutic Approach for Rett Syndrome. <i>Neurotherapeutics</i> , 2022, 19, 1340-1352.	4.4	3
7	Optimized Administration of the M <sub>4</sub> PAM VU0467154 Demonstrates Broad Efficacy, but Limited Effective Concentrations in <i>MeCP2</i> Mice. <i>ACS Chemical Neuroscience</i> , 2022, 13, 1891-1901.	3.5	0
8	Lead optimization of the VU0486321 series of mGlu1 PAMs. Part 4: SAR reveals positive cooperativity across multiple mGlu receptor subtypes leading to subtype unselective PAMs. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2021, 32, 127724.	2.2	2
9	Technologies for Screening of mGlu Receptor Allosteric Modulators. <i>Neuromethods</i> , 2021, , 1-22.	0.3	0
10	Discovery and optimization of a novel CNS penetrant series of mGlu4 PAMs based on a 1,4-thiazepane core with in vivo efficacy in a preclinical Parkinsonian model. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2021, 37, 127838.	2.2	3
11	Input-specific regulation of glutamatergic synaptic transmission in the medial prefrontal cortex by mGlu <sub>2</sub> /mGlu <sub>4</sub> receptor heterodimers. <i>Science Signaling</i> , 2021, 14, .	3.6	14
12	Profiling beneficial and potential adverse effects of MeCP2 overexpression in a hypomorphic Rett syndrome mouse model. <i>Genes, Brain and Behavior</i> , 2021, , 12752.	2.2	10
13	Frontal cortex genetic ablation of metabotropic glutamate receptor subtype 3 (mGlu3) impairs postsynaptic plasticity and modulates affective behaviors. <i>Neuropsychopharmacology</i> , 2021, 46, 2148-2157.	5.4	8
14	Regulation and functional consequences of mGlu <sub>4</sub> RNA editing. <i>Rna</i> , 2021, 27, 1220-1240.	3.5	3
15	Discovery of the First Selective M <sub>4</sub> Muscarinic Acetylcholine Receptor Antagonists with <i>In Vivo</i> Antiparkinsonian and Antidystonic Efficacy. <i>ACS Pharmacology and Translational Science</i> , 2021, 4, 1306-1321.	4.9	11
16	Discovery of VU6028418: A Highly Selective and Orally Bioavailable M4 Muscarinic Acetylcholine Receptor Antagonist. <i>ACS Medicinal Chemistry Letters</i> , 2021, 12, 1342-1349.	2.8	6
17	Discovery of "Molecular Switches" within a Series of mGlu <sub>5</sub> Allosteric Ligands Driven by a "Magic Methyl" Effect Affording Both PAMs and NAMs with <i>In Vivo</i> Activity, Derived from an M <sub>1</sub> PAM Chemotype. <i>ACS Bio &amp; Med Chem Au</i> , 2021, 1, 21-30.	3.7	3
18	Activating mGlu3 Metabotropic Glutamate Receptors Rescues Schizophrenia-like Cognitive Deficits Through Metaplastic Adaptations Within the Hippocampus. <i>Biological Psychiatry</i> , 2021, 90, 385-398.	1.3	27

#	ARTICLE	IF	CITATIONS
19	Discovery of a novel class of heteroaryl-pyrrolidinones as positive allosteric modulators of the muscarinic acetylcholine receptor M1. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2021, 47, 128193.	2.2	2
20	Positive allosteric modulators (PAMs) of the group II metabotropic glutamate receptors: Design, synthesis, and evaluation as ex-vivo tool compounds. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2021, 50, 128342.	2.2	2
21	A GRM7 mutation associated with developmental delay reduces mGlu7 expression and produces neurological phenotypes. <i>JCI Insight</i> , 2021, 6, .	5.0	10
22	Development of structurally distinct tricyclic M4 positive allosteric modulator (PAM) chemotypes - Part 2. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2021, 53, 128416.	2.2	0
23	mGlu1 potentiation enhances prelimbic somatostatin interneuron activity to rescue schizophrenia-like physiological and cognitive deficits. <i>Cell Reports</i> , 2021, 37, 109950.	6.4	21
24	Discovery of structurally distinct tricyclic M4 positive allosteric modulator (PAM) chemotypes. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2020, 30, 126811.	2.2	3
25	Discovery of a novel 2,3-dimethylimidazo[1,2-a]pyrazine-6-carboxamide M4 positive allosteric modulator (PAM) chemotype. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2020, 30, 126812.	2.2	2
26	Synthesis and SAR of a series of mGlu7 NAMs based on an ethyl-8-methoxy-4-(4-phenylpiperazin-1-yl)quinoline carboxylate core. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2020, 30, 127529.	2.2	5
27	Discovery of VU6027459: A First-in-Class Selective and CNS Penetrant mGlu <sub>7</sub> Positive Allosteric Modulator Tool Compound. <i>ACS Medicinal Chemistry Letters</i> , 2020, 11, 1773-1779.	2.8	8
28	Phenotypic profiling of mGlu <sub>7</sub> knockout mice reveals new implications for neurodevelopmental disorders. <i>Genes, Brain and Behavior</i> , 2020, 19, e12654.	2.2	25
29	Synthesis and pharmacological evaluation of bivalent tethered ligands to target the mGlu <sub>2/4</sub> heterodimeric receptor results in a compound with mGlu <sub>2/2</sub> homodimer selectivity. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2020, 30, 127212.	2.2	3
30	Discovery of Tricyclic Triazolo- and Imidazopyridine Lactams as M <sub>1</sub> Positive Allosteric Modulators. <i>ACS Chemical Neuroscience</i> , 2019, 10, 1035-1042.	3.5	5
31	Evaluation of Synthetic Cytochrome P <sub>450</sub> -Mimetic Metalloporphyrins To Facilitate $\alpha$ -Biomimetic-Biotransformation of a Series of mGlu <sub>5</sub> Allosteric Ligands. <i>ACS Omega</i> , 2019, 4, 12782-12789.	3.5	2
32	Further exploration of an N-aryl phenoxyethoxy pyridinone-based series of mGlu <sub>3</sub> NAMs: Challenging SAR, enantiospecific activity and in vivo efficacy. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2019, 29, 2670-2674.	2.2	0
33	Discovery of a novel 3,4-dimethylcinnoline carboxamide M4 positive allosteric modulator (PAM) chemotype via scaffold hopping. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2019, 29, 126678.	2.2	7
34	SAR inspired by aldehyde oxidase (AO) metabolism: Discovery of novel, CNS penetrant tricyclic M4 PAMs. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2019, 29, 2224-2228.	2.2	4
35	mGlu <sub>5</sub> Positive Allosteric Modulators Facilitate Long-Term Potentiation via Disinhibition Mediated by mGlu <sub>5</sub> -Endocannabinoid Signaling. <i>ACS Pharmacology and Translational Science</i> , 2019, 2, 198-209.	4.9	19
36	VU6005806/AZN-00016130, an advanced M4 positive allosteric modulator (PAM) profiled as a potential preclinical development candidate. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2019, 29, 1714-1718.	2.2	6

#	ARTICLE	IF	CITATIONS
37	A Coordinated Attack: Rett Syndrome Therapeutic Development. <i>Trends in Pharmacological Sciences</i> , 2019, 40, 233-236.	8.7	11
38	Surveying heterocycles as amide bioisosteres within a series of mGlu7 NAMs: Discovery of VU6019278. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2019, 29, 1211-1214.	2.2	14
39	<i>In Vitro</i> to <i>In Vivo</i> Translation of Allosteric Modulator Concentration-Effect Relationships: Implications for Drug Discovery. <i>ACS Pharmacology and Translational Science</i> , 2019, 2, 442-452.	4.9	7
40	Biased M <sub>1</sub> receptor positive allosteric modulators reveal role of phospholipase D in M <sub>1</sub> -dependent rodent cortical plasticity. <i>Science Signaling</i> , 2019, 12, .	3.6	9
41	Novel M4 positive allosteric modulators derived from questioning the role and impact of a presumed intramolecular hydrogen-bonding motif in 1 <sup>2</sup> -amino carboxamide-harboring ligands. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2019, 29, 362-366.	2.2	4
42	Discovery of 4-alkoxy-6-methylpicolinamide negative allosteric modulators of metabotropic glutamate receptor subtype 5. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2019, 29, 47-50.	2.2	5
43	Discovery of an Orally Bioavailable and Central Nervous System (CNS) Penetrant mGlu <sub>7</sub> Negative Allosteric Modulator (NAM) <i>In Vivo</i> Tool Compound: <i>N</i> -(2-(1 <i>H</i> -1,2,4-triazol-1-yl)-5-(trifluoromethoxy)phenyl)-4-(cyclopropylmethoxy)-3-methoxybenzamide (VU6012962). <i>Journal of Medicinal Chemistry</i> , 2019, 62, 1690-1695.	6.4	20
44	Discovery of Novel Central Nervous System Penetrant Metabotropic Glutamate Receptor Subtype 2 (mGlu <sub>2</sub> ) Negative Allosteric Modulators (NAMs) Based on Functionalized Pyrazolo[1,5- <i>a</i> ]pyrimidine-5-carboxamide and Thieno[3,2- <i>b</i> ]pyridine-5-carboxamide Cores. <i>Journal of Medicinal Chemistry</i> , 2019, 62, 378-384.	6.4	17
45	The discovery of VU0652957 (VU2957, Valiglurax): SAR and DMPK challenges en route to an mGlu4 PAM development candidate. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2019, 29, 342-346.	2.2	6
46	Discovery of VU2957 (Valiglurax): An mGlu4 Positive Allosteric Modulator Evaluated as a Preclinical Candidate for the Treatment of Parkinson's Disease. <i>ACS Medicinal Chemistry Letters</i> , 2019, 10, 255-260.	2.8	17
47	Discovery, Structure-Activity Relationship, and Biological Characterization of a Novel Series of 6-((1 <i>H</i> -Pyrazolo[4,3- <i>b</i> ]pyridin-3-yl)amino)-benzo[ <i>d</i> ]isothiazole-3-carboxamides as Positive Allosteric Modulators of the Metabotropic Glutamate Receptor 4 (mGlu <sub>4</sub> ). <i>Journal of Medicinal Chemistry</i> , 2019, 62, 342-358.	6.4	16
48	Discovery of 6-(pyrimidin-5-ylmethyl)quinoline-8-carboxamide negative allosteric modulators of metabotropic glutamate receptor subtype 5. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2018, 28, 1679-1685.	2.2	2
49	PF-06827443 Displays Robust Allosteric Agonist and Positive Allosteric Modulator Activity in High Receptor Reserve and Native Systems. <i>ACS Chemical Neuroscience</i> , 2018, 9, 2218-2224.	3.5	19
50	Genetic Reduction or Negative Modulation of mGlu <sub>7</sub> Does Not Impact Anxiety and Fear Learning Phenotypes in a Mouse Model of <i>MECP2</i> Duplication Syndrome. <i>ACS Chemical Neuroscience</i> , 2018, 9, 2210-2217.	3.5	9
51	Contextual Fear Extinction Induces Hippocampal Metaplasticity Mediated by Metabotropic Glutamate Receptor 5. <i>Cerebral Cortex</i> , 2018, 28, 4291-4304.	2.9	17
52	A Novel M <sub>1</sub> PAM VU0486846 Exerts Efficacy in Cognition Models without Displaying Agonist Activity or Cholinergic Toxicity. <i>ACS Chemical Neuroscience</i> , 2018, 9, 2274-2285.	3.5	43
53	M1-positive allosteric modulators lacking agonist activity provide the optimal profile for enhancing cognition. <i>Neuropsychopharmacology</i> , 2018, 43, 1763-1771.	5.4	56
54	Differential Pharmacology and Binding of mGlu <sub>2</sub> Receptor Allosteric Modulators. <i>Molecular Pharmacology</i> , 2018, 93, 526-540.	2.3	27

#	ARTICLE	IF	CITATIONS
55	Total RNA Sequencing of Rett Syndrome Autopsy Samples Identifies the M <sub>4</sub> Muscarinic Receptor as a Novel Therapeutic Target. <i>Journal of Pharmacology and Experimental Therapeutics</i> , 2018, 365, 291-300.	2.5	29
56	Cognitive enhancement and antipsychotic-like activity following repeated dosing with the selective M <sub>4</sub> PAM VU0467154. <i>Neuropharmacology</i> , 2018, 128, 492-502.	4.1	35
57	Metabotropic Glutamate Receptor 7: A New Therapeutic Target in Neurodevelopmental Disorders. <i>Frontiers in Molecular Neuroscience</i> , 2018, 11, 387.	2.9	33
58	Activated CaMKII $\alpha$ Binds to the mGlu5 Metabotropic Glutamate Receptor and Modulates Calcium Mobilization. <i>Molecular Pharmacology</i> , 2018, 94, 1352-1362.	2.3	15
59	VU6007477, a Novel M <sub>1</sub> PAM Based on a Pyrrolo[2,3- <i>b</i> ]pyridine Carboxamide Core Devoid of Cholinergic Adverse Events. <i>ACS Medicinal Chemistry Letters</i> , 2018, 9, 917-922.	2.8	11
60	Discovery and characterization of N-(1,3-dialkyl-1H-indazol-6-yl)-1H-pyrazolo[4,3- <i>b</i> ]pyridin-3-amine scaffold as mGlu4 positive allosteric modulators that mitigate CYP1A2 induction liability. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2018, 28, 2641-2646.	2.2	9
61	The discovery of VU0486846: steep SAR from a series of M <sub>1</sub> PAMs based on a novel benzomorpholine core. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2018, 28, 2175-2179.	2.2	10
62	Discovery of a Novel Series of Orally Bioavailable and CNS Penetrant Glucagon-like Peptide-1 Receptor (GLP-1R) Noncompetitive Antagonists Based on a 1,3-Disubstituted-7-aryl-5,5-bis(trifluoromethyl)-5,8-dihydropyrimido[4,5- <i>d</i> ]pyrimidine-2,4(1- <i>H</i> ),3- <i>H</i> )-dione Core. <i>Journal of Medicinal Chemistry</i> , 2017, 60, 1611-1616.	6.4	10
63	Accelerating Precision Drug Development and Drug Repurposing by Leveraging Human Genetics. <i>Assay and Drug Development Technologies</i> , 2017, 15, 113-119.	1.2	30
64	Optimization of M <sub>4</sub> positive allosteric modulators (PAMs): The discovery of VU0476406, a non-human primate in vivo tool compound for translational pharmacology. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2017, 27, 2296-2301.	2.2	17
65	Synthesis and evaluation of 4,6-disubstituted pyrimidines as CNS penetrant pan-muscarinic antagonists with a novel chemotype. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2017, 27, 2479-2483.	2.2	2
66	Challenges in the development of an M <sub>4</sub> PAM preclinical candidate: The discovery, SAR, and in vivo characterization of a series of 3-aminoazetidone-derived amides. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2017, 27, 2990-2995.	2.2	16
67	novel, CNS penetrant pan-muscarinic antagonists. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2017, 27, 3576-3581.	2.2	10
68	Discovery of N-(5-Fluoropyridin-2-yl)-6-methyl-4-(pyrimidin-5-yloxy)picolinamide (VU0424238): A Novel Negative Allosteric Modulator of Metabotropic Glutamate Receptor Subtype 5 Selected for Clinical Evaluation. <i>Journal of Medicinal Chemistry</i> , 2017, 60, 5072-5085.	6.4	26
69	Diverse Effects on M <sub>1</sub> Signaling and Adverse Effect Liability within a Series of M <sub>1</sub> Ago-PAMs. <i>ACS Chemical Neuroscience</i> , 2017, 8, 866-883.	3.5	44
70	Discovery of VU0467485/AZ13713945: An M <sub>4</sub> PAM Evaluated as a Preclinical Candidate for the Treatment of Schizophrenia. <i>ACS Medicinal Chemistry Letters</i> , 2017, 8, 233-238.	2.8	43
71	Challenges in the development of an M <sub>4</sub> PAM in vivo tool compound: The discovery of VU0467154 and unexpected DMPK profiles of close analogs. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2017, 27, 171-175.	2.2	32
72	Discovery of a novel 2,4-dimethylquinoline-6-carboxamide M <sub>4</sub> positive allosteric modulator (PAM) chemotype via scaffold hopping. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2017, 27, 4999-5001.	2.2	15

#	ARTICLE	IF	CITATIONS
73	Challenges in the development of an M4 PAM preclinical candidate: The discovery, SAR, and biological characterization of a series of azetidino-derived tertiary amides. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2017, 27, 5179-5184.	2.2	17
74	Discovery of a novel, CNS penetrant M4 PAM chemotype based on a 6-fluoro-4-(piperidin-1-yl)quinoline-3-carbonitrile core. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2017, 27, 4274-4279.	2.2	8
75	Discovery of imidazo[1,2-a]-, [1,2,4]triazolo[4,3-a]-, and [1,2,4]triazolo[1,5-a]pyridine-8-carboxamide negative allosteric modulators of metabotropic glutamate receptor subtype 5. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2017, 27, 4858-4866.	2.2	8
76	Discovery of VU6005649, a CNS Penetrant mGlu <sub>7/8</sub> Receptor PAM Derived from a Series of Pyrazolo[1,5- <i>a</i> ]pyrimidines. <i>ACS Medicinal Chemistry Letters</i> , 2017, 8, 1110-1115.	2.8	28
77	Design and Synthesis of <i>N</i> -Aryl Phenoxyethoxy Pyridinones as Highly Selective and CNS Penetrant mGlu <sub>3</sub> NAMs. <i>ACS Medicinal Chemistry Letters</i> , 2017, 8, 925-930.	2.8	38
78	mGlu <sub>7</sub> potentiation rescues cognitive, social, and respiratory phenotypes in a mouse model of Rett syndrome. <i>Science Translational Medicine</i> , 2017, 9, .	12.4	55
79	Design and Synthesis of mGlu <sub>2</sub> NAMs with Improved Potency and CNS Penetration Based on a Truncated Picolinamide Core. <i>ACS Medicinal Chemistry Letters</i> , 2017, 8, 919-924.	2.8	33
80	When Enough Is Enough: Decision Criteria for Moving a Known Drug into Clinical Testing for a New Indication in the Absence of Preclinical Efficacy Data. <i>Assay and Drug Development Technologies</i> , 2017, 15, 354-361.	1.2	4
81	VU6010608, a Novel mGlu <sub>7</sub> NAM from a Series of <i>N</i> -(2-(1 <i>H</i> -1,2,4-Triazol-1-yl)-5-(trifluoromethoxy)phenyl)benzamides. <i>ACS Medicinal Chemistry Letters</i> , 2017, 8, 1326-1330.	2.8	18
82	Cholinergic Projections to the Substantia Nigra Pars Reticulata Inhibit Dopamine Modulation of Basal Ganglia through the M4 Muscarinic Receptor. <i>Neuron</i> , 2017, 96, 1358-1372.e4.	8.1	43
83	Discovery of 3-aminopicolinamides as metabotropic glutamate receptor subtype 4 (mGlu4) positive allosteric modulator warheads engendering CNS exposure and in vivo efficacy. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2016, 26, 2915-2919.	2.2	3
84	Further optimization of the M1 PAM VU0453595: Discovery of novel heterobicyclic core motifs with improved CNS penetration. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2016, 26, 3822-3825.	2.2	11
85	Discovery, Synthesis, and Preclinical Characterization of <i>N</i> -(3-Chloro-4-fluorophenyl)-1 <i>H</i> -pyrazolo[4,3- <i>b</i> ]pyridin-3-amine (VU0418506), a Novel Positive Allosteric Modulator of the Metabotropic Glutamate Receptor 4 (mGlu4). <i>ACS Chemical Neuroscience</i> , 2016, 7, 1192-1200.	3.5	39
86	Re-exploration of the mGlu1 PAM Ro 07-11401 scaffold: Discovery of analogs with improved CNS penetration despite steep SAR. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2016, 26, 2289-2292.	2.2	7
87	Discovery and optimization of a novel series of highly CNS penetrant M4 PAMs based on a 5,6-dimethyl-4-(piperidin-1-yl)thieno[2,3- <i>d</i> ]pyrimidine core. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2016, 26, 3029-3033.	2.2	22
88	Discovery and SAR of a novel series of potent, CNS penetrant M4 PAMs based on a non-enolizable ketone core: Challenges in disposition. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2016, 26, 4282-4286.	2.2	11
89	Antipsychotic-like Effects of M4 Positive Allosteric Modulators Are Mediated by CB2 Receptor-Dependent Inhibition of Dopamine Release. <i>Neuron</i> , 2016, 91, 1244-1252.	8.1	110
90	Prefrontal Cortex-Mediated Impairments in a Genetic Model of NMDA Receptor Hypofunction Are Reversed by the Novel M <sub>1</sub> PAM VU6004256. <i>ACS Chemical Neuroscience</i> , 2016, 7, 1706-1716.	3.5	39

#	ARTICLE	IF	CITATIONS
91	Development and Antiparkinsonian Activity of VU0418506, a Selective Positive Allosteric Modulator of Metabotropic Glutamate Receptor 4 Homomers without Activity at mGlu <sub>2/4</sub> Heteromers. ACS Chemical Neuroscience, 2016, 7, 1201-1211.	3.5	50
92	Discovery and characterization of a novel series of N -phenylsulfonyl-1 H -pyrrole picolinamides as positive allosteric modulators of the metabotropic glutamate receptor 4 (mGlu <sub>4</sub> ). Bioorganic and Medicinal Chemistry Letters, 2016, 26, 2984-2987.	2.2	5
93	N-Alkylpyrido[1,2-a]pyrazolo-[4,3-d]pyrimidin-4-amines: A new series of negative allosteric modulators of mGlu <sub>1/5</sub> with CNS exposure in rodents. Bioorganic and Medicinal Chemistry Letters, 2016, 26, 1894-1900.	2.2	9
94	Lead optimization of the VU0486321 series of mGlu <sub>1</sub> PAMs. Part 3. Engineering plasma stability by discovery and optimization of isoindolinone analogs. Bioorganic and Medicinal Chemistry Letters, 2016, 26, 1869-1872.	2.2	10
95	Practical Strategies and Concepts in GPCR Allosteric Modulator Discovery: Recent Advances with Metabotropic Glutamate Receptors. Chemical Reviews, 2016, 116, 6707-6741.	47.7	151
96	Lead optimization of the VU0486321 series of mGlu <sub>1</sub> PAMs. Part 2: SAR of alternative 3-methyl heterocycles and progress towards an in vivo tool. Bioorganic and Medicinal Chemistry Letters, 2016, 26, 751-756.	2.2	15
97	The Metabotropic Glutamate Receptor 4 Positive Allosteric Modulator ADX88178 Inhibits Inflammatory Responses in Primary Microglia. Journal of NeuroImmune Pharmacology, 2016, 11, 231-237.	4.1	32
98	mGlu <sub>5</sub> positive allosteric modulation normalizes synaptic plasticity defects and motor phenotypes in a mouse model of Rett syndrome. Human Molecular Genetics, 2016, 25, 1990-2004.	2.9	48
99	Preliminary investigation of 6,7-dihydropyrazolo[1,5-a]pyrazin-4-one derivatives as a novel series of mGlu <sub>5</sub> receptor positive allosteric modulators with efficacy in preclinical models of schizophrenia. Bioorganic and Medicinal Chemistry Letters, 2016, 26, 429-434.	2.2	7
100	State-dependent alterations in sleep/wake architecture elicited by the M4 PAM VU0467154 – Relation to antipsychotic-like drug effects. Neuropharmacology, 2016, 102, 244-253.	4.1	23
101	Partial mGlu <sub>5</sub> Negative Allosteric Modulators Attenuate Cocaine-Mediated Behaviors and Lack Psychotomimetic-Like Effects. Neuropsychopharmacology, 2016, 41, 1166-1178.	5.4	33
102	The Role of mGlu Receptors in Hippocampal Plasticity Deficits in Neurological and Psychiatric Disorders: Implications for Allosteric Modulators as Novel Therapeutic Strategies. Current Neuropharmacology, 2016, 14, 455-473.	2.9	10
103	M1 and M3 muscarinic receptors may play a role in the neurotoxicity of anhydroecgonine methyl ester, a cocaine pyrolysis product. Scientific Reports, 2015, 5, 17555.	3.3	10
104	Discovery of VU0409551/JNJ-46778212: An mGlu <sub>5</sub> Positive Allosteric Modulator Clinical Candidate Targeting Schizophrenia. ACS Medicinal Chemistry Letters, 2015, 6, 716-720.	2.8	41
105	VU0477573: Partial Negative Allosteric Modulator of the Subtype 5 Metabotropic Glutamate Receptor with In Vivo Efficacy. Journal of Pharmacology and Experimental Therapeutics, 2015, 356, 123-136.	2.5	41
106	Allosteric activation of M4 muscarinic receptors improve behavioral and physiological alterations in early symptomatic YAC128 mice. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 14078-14083.	7.1	41
107	Discovery and SAR of novel series of imidazopyrimidinones and dihydroimidazopyrimidinones as positive allosteric modulators of the metabotropic glutamate receptor 5 (mGlu <sub>5</sub> ). Bioorganic and Medicinal Chemistry Letters, 2015, 25, 1310-1317.	2.2	9
108	Metabotropic glutamate receptor 3 activation is required for long-term depression in medial prefrontal cortex and fear extinction. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 1196-1201.	7.1	86

#	ARTICLE	IF	CITATIONS
109	Further optimization of the M5 NAM MLPCN probe ML375: Tactics and challenges. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2015, 25, 690-694.	2.2	20
110	Relationship between In Vivo Receptor Occupancy and Efficacy of Metabotropic Glutamate Receptor Subtype 5 Allosteric Modulators with Different In Vitro Binding Profiles. <i>Neuropsychopharmacology</i> , 2015, 40, 755-765.	5.4	40
111	Further optimization of the mGlu5 PAM clinical candidate VU0409551/JNJ-46778212: Progress and challenges towards a back-up compound. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2015, 25, 3515-3519.	2.2	7
112	Activation of Metabotropic Glutamate Receptor 7 Is Required for Induction of Long-Term Potentiation at SC-CA1 Synapses in the Hippocampus. <i>Journal of Neuroscience</i> , 2015, 35, 7600-7615.	3.6	40
113	Pharmacological stimulation of metabotropic glutamate receptor type 4 in a rat model of Parkinson's disease and L-DOPA-induced dyskinesia: Comparison between a positive allosteric modulator and an orthosteric agonist. <i>Neuropharmacology</i> , 2015, 95, 121-129.	4.1	46
114	Biased mGlu 5 -Positive Allosteric Modulators Provide In Vivo Efficacy without Potentiating mGlu 5 Modulation of NMDAR Currents. <i>Neuron</i> , 2015, 86, 1029-1040.	8.1	121
115	Design of 4-Oxo-1-aryl-1,4-dihydroquinoline-3-carboxamides as Selective Negative Allosteric Modulators of Metabotropic Glutamate Receptor Subtype 2. <i>Journal of Medicinal Chemistry</i> , 2015, 58, 9027-9040.	6.4	31
116	Application of Parallel Multiparametric Cell-Based FLIPR Detection Assays for the Identification of Modulators of the Muscarinic Acetylcholine Receptor 4 (M4). <i>Journal of Biomolecular Screening</i> , 2015, 20, 858-868.	2.6	25
117	Acyl dihydropyrazolo[1,5-a]pyrimidinones as metabotropic glutamate receptor 5 positive allosteric modulators. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2015, 25, 5115-5120.	2.2	5
118	Discovery of a Selective and CNS Penetrant Negative Allosteric Modulator of Metabotropic Glutamate Receptor Subtype 3 with Antidepressant and Anxiolytic Activity in Rodents. <i>Journal of Medicinal Chemistry</i> , 2015, 58, 7485-7500.	6.4	62
119	Lead optimization of the VU0486321 series of mGlu1 PAMs. Part 1: SAR of modifications to the central aryl core. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2015, 25, 5107-5110.	2.2	12
120	Discovery and SAR of muscarinic receptor subtype 1 (M1) allosteric activators from a molecular libraries high throughput screen. Part 1: 2,5-Dibenzyl-2H-pyrazolo[4,3-c]quinolin-3(5H)-ones as positive allosteric modulators. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2015, 25, 384-388.	2.2	9
121	Identification of Positive Allosteric Modulators VU0155094 (ML397) and VU0422288 (ML396) Reveals New Insights into the Biology of Metabotropic Glutamate Receptor 7. <i>ACS Chemical Neuroscience</i> , 2014, 5, 1221-1237.	3.5	53
122	Selective Actions of Novel Allosteric Modulators Reveal Functional Heteromers of Metabotropic Glutamate Receptors in the CNS. <i>Journal of Neuroscience</i> , 2014, 34, 79-94.	3.6	107
123	Discovery and SAR of a novel series of metabotropic glutamate receptor 5 positive allosteric modulators with high ligand efficiency. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2014, 24, 3641-3646.	2.2	7
124	Structure of a Class C GPCR Metabotropic Glutamate Receptor 1 Bound to an Allosteric Modulator. <i>Science</i> , 2014, 344, 58-64.	12.6	476
125	Novel GlyT1 inhibitor chemotypes by scaffold hopping. Part 2: Development of a [3.3.0]-based series and other piperidine bioisosteres. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2014, 24, 1062-1066.	2.2	6
126	Novel GlyT1 inhibitor chemotypes by scaffold hopping. Part 1: Development of a potent and CNS penetrant [3.1.0]-based lead. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2014, 24, 1067-1070.	2.2	8



#	ARTICLE	IF	CITATIONS
127	Opportunities and challenges in the discovery of allosteric modulators of GPCRs for treating CNS disorders. <i>Nature Reviews Drug Discovery</i> , 2014, 13, 692-708.	46.4	226
128	A Novel Class of Succinimide-Derived Negative Allosteric Modulators of Metabotropic Glutamate Receptor Subtype 1 Provides Insight into a Disconnect in Activity between the Rat and Human Receptors. <i>ACS Chemical Neuroscience</i> , 2014, 5, 597-610.	3.5	45
129	Tetrahydronaphthyridine and Dihydronaphthyridinone Ethers As Positive Allosteric Modulators of the Metabotropic Glutamate Receptor 5 (mGlu <sub>5</sub> ). <i>Journal of Medicinal Chemistry</i> , 2014, 57, 5620-5637.	6.4	13
130	Discovery of VU0431316: A negative allosteric modulator of mGlu5 with activity in a mouse model of anxiety. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2014, 24, 3307-3314.	2.2	9
131	Selective Activation of M <sub>4</sub> Muscarinic Acetylcholine Receptors Reverses MK-801-Induced Behavioral Impairments and Enhances Associative Learning in Rodents. <i>ACS Chemical Neuroscience</i> , 2014, 5, 920-942.	3.5	116
132	Progress toward advanced understanding of metabotropic glutamate receptors: structure, signaling and therapeutic indications. <i>Cellular Signalling</i> , 2014, 26, 2284-2297.	3.6	40
133	The metabotropic glutamate receptor 8 agonist (S)-3,4-DCPG reverses motor deficits in prolonged but not acute models of Parkinson's disease. <i>Neuropharmacology</i> , 2013, 66, 187-195.	4.1	27
134	Approaches for Probing Allosteric Interactions at 7 Transmembrane Spanning Receptors. <i>Progress in Molecular Biology and Translational Science</i> , 2013, 115, 1-59.	1.7	15
135	Functional selectivity induced by mGlu4 receptor positive allosteric modulation and concomitant activation of Gq coupled receptors. <i>Neuropharmacology</i> , 2013, 66, 122-132.	4.1	11
136	Unique Signaling Profiles of Positive Allosteric Modulators of Metabotropic Glutamate Receptor Subtype 5 Determine Differences in In Vivo Activity. <i>Biological Psychiatry</i> , 2013, 73, 501-509.	1.3	95
137	ML297 (VU0456810), the First Potent and Selective Activator of the GIRK Potassium Channel, Displays Antiepileptic Properties in Mice. <i>ACS Chemical Neuroscience</i> , 2013, 4, 1278-1286.	3.5	135
138	Pharmacology of Metabotropic Glutamate Receptor Allosteric Modulators. <i>Progress in Molecular Biology and Translational Science</i> , 2013, 115, 61-121.	1.7	44
139	Exploration of Allosteric Agonism Structure-Activity Relationships within an Acetylene Series of Metabotropic Glutamate Receptor 5 (mGlu <sub>5</sub> ) Positive Allosteric Modulators (PAMs): Discovery of 5-((3-Fluorophenyl)ethynyl)-N-(3-methyloxetan-3-yl)picolinamide (ML254). <i>Journal of Medicinal Chemistry</i> , 2013, 56, 7976-7996.	6.4	28
140	Substituted 1-Phenyl-3-(pyridin-2-yl)urea Negative Allosteric Modulators of mGlu <sub>5</sub> : Discovery of a New Tool Compound VU0463841 with Activity in Rat Models of Cocaine Addiction. <i>ACS Chemical Neuroscience</i> , 2013, 4, 1217-1228.	3.5	16
141	Biotransformation of a Novel Positive Allosteric Modulator of Metabotropic Glutamate Receptor Subtype 5 Contributes to Seizure-Like Adverse Events in Rats Involving a Receptor Agonism-Dependent Mechanism. <i>Drug Metabolism and Disposition</i> , 2013, 41, 1703-1714.	3.3	42
142	Heterotropic Activation of the Midazolam Hydroxylase Activity of CYP3A by a Positive Allosteric Modulator of mGlu <sub>5</sub> : In Vitro to In Vivo Translation and Potential Impact on Clinically Relevant Drug-Drug Interactions. <i>Drug Metabolism and Disposition</i> , 2013, 41, 2066-2075.	3.3	20
143	Novel Positive Allosteric Modulators Bias Acetylcholine Signaling at Human M <sub>4</sub> Muscarinic Receptors. <i>FASEB Journal</i> , 2013, 27, 1171.4.	0.5	0
144	The Metabotropic Glutamate Receptor 4-Positive Allosteric Modulator VU0364770 Produces Efficacy Alone and in Combination with L-DOPA or an Adenosine 2A Antagonist in Preclinical Rodent Models of Parkinson's Disease. <i>Journal of Pharmacology and Experimental Therapeutics</i> , 2012, 340, 404-421.	2.5	95

#	ARTICLE	IF	CITATIONS
145	Investigating Metabotropic Glutamate Receptor 5 Allosteric Modulator Cooperativity, Affinity, and Agonism: Enriching Structure-Function Studies and Structure-Activity Relationships. <i>Molecular Pharmacology</i> , 2012, 82, 860-875.	2.3	90
146	Novel Allosteric Agonists of M1 Muscarinic Acetylcholine Receptors Induce Brain Region-Specific Responses That Correspond with Behavioral Effects in Animal Models. <i>Journal of Neuroscience</i> , 2012, 32, 8532-8544.	3.6	98
147	Allosteric Modulation of Seven Transmembrane Spanning Receptors: Theory, Practice, and Opportunities for Central Nervous System Drug Discovery. <i>Journal of Medicinal Chemistry</i> , 2012, 55, 1445-1464.	6.4	212
148	Iterative experimental and virtual high-throughput screening identifies metabotropic glutamate receptor subtype 4 positive allosteric modulators. <i>Journal of Molecular Modeling</i> , 2012, 18, 4437-4446.	1.8	9
149	Functional Impact of Allosteric Agonist Activity of Selective Positive Allosteric Modulators of Metabotropic Glutamate Receptor Subtype 5 in Regulating Central Nervous System Function. <i>Molecular Pharmacology</i> , 2012, 81, 120-133.	2.3	112
150	Synthesis and biological characterization of a series of novel diaryl amide M1 antagonists. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2012, 22, 6923-6928.	2.2	7
151	The Role of Aldehyde Oxidase and Xanthine Oxidase in the Biotransformation of a Novel Negative Allosteric Modulator of Metabotropic Glutamate Receptor Subtype 5. <i>Drug Metabolism and Disposition</i> , 2012, 40, 1834-1845.	3.3	36
152	Discovery of 2-(2-benzoxazolyl amino)-4-aryl-5-cyanopyrimidine as Negative Allosteric Modulators (NAMs) of Metabotropic Glutamate Receptor 5 (mGlu <sub>5</sub> ): From an Artificial Neural Network Virtual Screen to an In Vivo Tool Compound. <i>ChemMedChem</i> , 2012, 7, 406-414.	3.2	38
153	Development of a novel, CNS-penetrant, metabotropic glutamate receptor 3 (mGlu <sub>3</sub> ) NAM probe (ML289) derived from a closely related mGlu <sub>5</sub> PAM. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2012, 22, 3921-3925.	2.2	33
154	Discovery, Synthesis, and Structure-Activity Relationship Development of a Series of N-(4-Acetamido)phenylpicolinamides as Positive Allosteric Modulators of Metabotropic Glutamate Receptor 4 (mGlu <sub>4</sub> ) with CNS Exposure in Rats. <i>Journal of Medicinal Chemistry</i> , 2011, 54, 1106-1110.	6.4	45
155	Discovery, Synthesis, and Structure-Activity Relationship Development of a Series of N-(2,5-Dioxopyrrolidin-1-yl)phenylpicolinamides (VU0400195, ML182): Characterization of a Novel Positive Allosteric Modulator of the Metabotropic Glutamate Receptor 4 (mGlu <sub>4</sub> ) with Oral Efficacy in an Antiparkinsonian Animal Model. <i>Journal of Medicinal Chemistry</i> , 2011, 54, 7639-7647.	6.4	52
156	Activation of group II metabotropic glutamate receptors induces long-term depression of excitatory synaptic transmission in the substantia nigra pars reticulata. <i>Neuroscience Letters</i> , 2011, 504, 102-106.	2.1	28
157	Solution-Phase Parallel Synthesis and SAR of Homopiperazinyl Analogs as Positive Allosteric Modulators of mGlu <sub>4</sub> . <i>ACS Combinatorial Science</i> , 2011, 13, 159-165.	3.8	6
158	Synthesis and SAR of a novel metabotropic glutamate receptor 4 (mGlu <sub>4</sub> ) antagonist: Unexpected molecular switch™ from a closely related mGlu <sub>4</sub> positive allosteric modulator. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2011, 21, 6955-6959.	2.2	16
159	Discovery of molecular switches within the ADX-47273 mGlu <sub>5</sub> PAM scaffold that modulate modes of pharmacology to afford potent mGlu <sub>5</sub> NAMs, PAMs and partial antagonists. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2011, 21, 2711-2714.	2.2	41
160	Discovery and optimization of a novel, selective and brain penetrant M1 positive allosteric modulator (PAM): The development of ML169, an MLPCN probe. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2011, 21, 2697-2701.	2.2	63
161	Discovery of a Novel Chemical Class of mGlu <sub>5</sub> Allosteric Ligands with Distinct Modes of Pharmacology. <i>ACS Chemical Neuroscience</i> , 2010, 1, 702-716.	3.5	70
162	Synthesis and SAR of novel, 4-(phenylsulfamoyl)phenylacetamide mGlu <sub>4</sub> positive allosteric modulators (PAMs) identified by functional high-throughput screening (HTS). <i>Bioorganic and Medicinal Chemistry Letters</i> , 2010, 20, 5175-5178.	2.2	26

#	ARTICLE	IF	CITATIONS
163	Context-Dependent Pharmacology Exhibited by Negative Allosteric Modulators of Metabotropic Glutamate Receptor 7. <i>Molecular Pharmacology</i> , 2010, 77, 459-468.	2.3	73
164	Discovery of Novel Allosteric Modulators of Metabotropic Glutamate Receptor Subtype 5 Reveals Chemical and Functional Diversity and In Vivo Activity in Rat Behavioral Models of Anxiolytic and Antipsychotic Activity. <i>Molecular Pharmacology</i> , 2010, 78, 1105-1123.	2.3	176
165	Re-exploration of the PHCCC Scaffold: Discovery of Improved Positive Allosteric Modulators of mGluR4. <i>ACS Chemical Neuroscience</i> , 2010, 1, 411-419.	3.5	45
166	Metabotropic Glutamate Receptors: Physiology, Pharmacology, and Disease. <i>Annual Review of Pharmacology and Toxicology</i> , 2010, 50, 295-322.	9.4	1,510
167	Discovery and Characterization of Novel Allosteric Potentiators of M <sub>1</sub> Muscarinic Receptors Reveals Multiple Modes of Activity. <i>Molecular Pharmacology</i> , 2009, 75, 577-588.	2.3	135
168	mGluR4-positive allosteric modulation as potential treatment for Parkinson's disease. <i>Future Medicinal Chemistry</i> , 2009, 1, 501-513.	2.3	59
169	A Novel Selective Muscarinic Acetylcholine Receptor Subtype 1 Antagonist Reduces Seizures without Impairing Hippocampus-Dependent Learning. <i>Molecular Pharmacology</i> , 2009, 76, 356-368.	2.3	121
170	Positive allosteric modulators of the metabotropic glutamate receptor subtype 4 (mGluR4). Part II: Challenges in hit-to-lead. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2009, 19, 962-966.	2.2	49
171	Synthesis and Evaluation of a Series of Heterobiaryl amides That Are Centrally Penetrant Metabotropic Glutamate Receptor 4 (mGluR4) Positive Allosteric Modulators (PAMs). <i>Journal of Medicinal Chemistry</i> , 2009, 52, 4115-4118.	6.4	79
172	Synthesis and SAR of a novel positive allosteric modulator (PAM) of the metabotropic glutamate receptor 4 (mGluR4). <i>Bioorganic and Medicinal Chemistry Letters</i> , 2009, 19, 4967-4970.	2.2	33
173	Glutamate Receptors as Therapeutic Targets for Parkinson's Disease. <i>CNS and Neurological Disorders - Drug Targets</i> , 2009, 8, 475-491.	1.4	209
174	Recent progress in the development of mGluR4 positive allosteric modulators for the treatment of Parkinson's disease. <i>Current Topics in Medicinal Chemistry</i> , 2009, 9, 949-63.	2.1	21
175	Positive allosteric modulators of the metabotropic glutamate receptor subtype 4 (mGluR4): Part I. Discovery of pyrazolo[3,4-d]pyrimidines as novel mGluR4 positive allosteric modulators. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2008, 18, 5626-5630.	2.2	55
176	An allosteric potentiator of M4 mAChR modulates hippocampal synaptic transmission. <i>Nature Chemical Biology</i> , 2008, 4, 42-50.	8.0	144
177	Group III mGluR regulation of synaptic transmission at the SC-CA1 synapse is developmentally regulated. <i>Neuropharmacology</i> , 2008, 54, 804-814.	4.1	68
178	A Novel Assay of G <sub>i/o</sub> -Linked G Protein-Coupled Receptor Coupling to Potassium Channels Provides New Insights into the Pharmacology of the Group III Metabotropic Glutamate Receptors. <i>Molecular Pharmacology</i> , 2008, 73, 1213-1224.	2.3	99
179	Discovery, Characterization, and Antiparkinsonian Effect of Novel Positive Allosteric Modulators of Metabotropic Glutamate Receptor 4. <i>Molecular Pharmacology</i> , 2008, 74, 1345-1358.	2.3	187
180	A Novel Family of Potent Negative Allosteric Modulators of Group II Metabotropic Glutamate Receptors. <i>Journal of Pharmacology and Experimental Therapeutics</i> , 2007, 322, 254-264.	2.5	67

#	ARTICLE	IF	CITATIONS
181	New Therapeutic Frontiers for Metabotropic Glutamate Receptors. <i>Current Topics in Medicinal Chemistry</i> , 2005, 5, 847-857.	2.1	59
182	RNA-editing of the 5-HT <sub>2C</sub> receptor alters agonist-receptor-effector coupling specificity. <i>British Journal of Pharmacology</i> , 2001, 134, 386-392.	5.4	130