Matthias M Herth

List of Publications by Year
in descending order

81 papers	1,759 citations	304602 22 h-index	345118 36 g-index
93 all docs	93 docs citations	93 times ranked	1655 citing authors

#	Article	IF	Citations
1	Pretargeting in nuclear imaging and radionuclide therapy: Improving efficacy of theranostics and nanomedicines. Biomaterials, 2018, 179, 209-245.	5.7	124
2	Radiosynthesis and in vivo evaluation of a series of substituted 11C-phenethylamines as 5-HT2A agonist PET tracers. European Journal of Nuclear Medicine and Molecular Imaging, 2011, 38, 681-693.	3.3	115
3	Radioactive Labeling of Defined HPMA-Based Polymeric Structures Using [¹⁸F]FETos for In Vivo Imaging by Positron Emission Tomography. Biomacromolecules, 2009, 10, 1697-1703.	2.6	99
4	The Center for Integrated Molecular Brain Imaging (Cimbi) database. NeuroImage, 2016, 124, 1213-1219.	2.1	95
5	Development of a 11C-labeled tetrazine for rapid tetrazineâ€“trans-cyclooctene ligation. Chemical Communications, 2013, 49, 3805.	2.2	60
6	Alpha-Synuclein PET Tracer Developmentâ€”An Overview about Current Efforts. Pharmaceuticals, 2021, 14, 847.	1.7	52
7	Trans-Cyclooctene-Functionalized PeptoBrushes with Improved Reaction Kinetics of the Tetrazine Ligation for Pretargeted Nuclear Imaging. ACS Nano, 2020, 14, 568-584.	7.3	50
8	Lipophilicity and Click Reactivity Determine the Performance of Bioorthogonal Tetrazine Tools in Pretargeted In Vivo Chemistry. ACS Pharmacology and Translational Science, 2021, 4, 824-833.	2.5	45
9	On the consensus nomenclature rules for radiopharmaceutical chemistry â€“ Reconsideration of radiochemical conversion. Nuclear Medicine and Biology, 2021, 93, 19-21.	0.3	43
10	72/74As-labeling of HPMA based polymers for long-term in vivo PET imaging. Bioorganic and Medicinal Chemistry Letters, 2010, 20, 5454-5458.	1.0	40
11	Synthesis and in vitro affinities of various MDL 100907 derivatives as potential 18F-radioligands for 5-HT2A receptor imaging with PET. Bioorganic and Medicinal Chemistry, 2009, 17, 2989-3002.	1.4	38
12	Radiosynthesis and In Vivo Evaluation of Novel Radioligands for PET Imaging of Cerebral 5-HT₇ Receptors. Journal of Nuclear Medicine, 2014, 55, 640-646.	2.8	37
13	Direct Cu-mediated aromatic ¹⁸F-labeling of highly reactive tetrazines for pretargeted bioorthogonal PET imaging. Chemical Science, 2021, 12, 11668-11675.	3.7	36
14	The role of neuroimaging in Parkinsonâ€™s disease. Journal of Neurochemistry, 2021, 159, 660-689.	2.1	35
15	Total synthesis and evaluation of [18F]MHMZ. Bioorganic and Medicinal Chemistry Letters, 2008, 18, 1515-1519.	1.0	33
16	Evaluation of 3-Ethyl-3-(phenylpiperazinylbutyl)oxindoles as PET Ligands for the Serotonin 5-HT₇ Receptor: Synthesis, Pharmacology, Radiolabeling, and in Vivo Brain Imaging in Pigs. Journal of Medicinal Chemistry, 2015, 58, 3631-3636.	2.9	32
17	In Vivo Radionuclide Generators for Diagnostics and Therapy. Bioinorganic Chemistry and Applications, 2016, 2016, 1-8.	1.8	31
18	Synthesis and In Vitro Evaluation of Oxindole Derivatives as Potential Radioligands for 5-HT₇ Receptor Imaging with PET. ACS Chemical Neuroscience, 2012, 3, 1002-1007.	1.7	29

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19	The Chemogenetic Receptor Ligand Clozapine N-Oxide Induces in vivo Neuroreceptor Occupancy and Reduces Striatal Glutamate Levels. Frontiers in Neuroscience, 2019, 13, 187.	1.4	27
20	Synthesis, radiolabeling and inÂvivo evaluation of [11C](R)-1-[4-[2-(4-methoxyphenyl)phenyl]piperazin-1-yl]-3-(2-pyrazinyloxy)-2-propanol, a potential PET radioligand for the 5-HT7 receptor. European Journal of Medicinal Chemistry, 2014, 79, 152-163.	2.6	26
21	Preliminary in vivo and ex vivo evaluation of the 5-HT2A imaging probe [18F]MH.MZ. Nuclear Medicine and Biology, 2009, 36, 447-454.	0.3	25
22	Nucleophilic ¹⁸Fâ€Labeling of Spirocyclic Iodonium Ylide or Boronic Pinacol Ester Precursors: Advantages and Disadvantages. European Journal of Organic Chemistry, 2017, 2017, 453-458.	1.2	25
23	Development of the First Aliphatic ¹⁸F-Labeled Tetrazine Suitable for Pretargeted PET Imagingâ€"Expanding the Bioorthogonal Tool Box. Journal of Medicinal Chemistry, 2021, 64, 15297-15312.	2.9	25
24	Evaluation of the inverse electron demand Diels-Alder reaction in rats using a scandium-44-labelled tetrazine for pretargeted PET imaging. EJNMMI Research, 2019, 9, 49.	1.1	24
25	Synthesis, radiofluorination and first evaluation of (Â±)â€[¹⁸F]MDL 100907 as serotonin 5â€HT_{2A} receptor antagonist for PET. Journal of Labelled Compounds and Radiopharmaceuticals, 2009, 52, 6-12.	0.5	23
26	18F-Labeling and evaluation of novel MDL 100907 derivatives as potential 5-HT2A antagonists for molecular imaging. Nuclear Medicine and Biology, 2010, 37, 487-495.	0.3	23
27	Synthesis and evaluation of [11C]Cimbi-806 as a potential PET ligand for 5-HT7 receptor imaging. Bioorganic and Medicinal Chemistry, 2012, 20, 4574-4581.	1.4	23
28	Design, synthesis, radiolabeling and in vivo evaluation of potential positron emission tomography (PET) radioligands for brain imaging of the 5-HT7 receptor. Bioorganic and Medicinal Chemistry, 2014, 22, 1736-1750.	1.4	22
29	Evaluation of a 68Ga-Labeled DOTA-Tetrazine as a PET Alternative to 111In-SPECT Pretargeted Imaging. Molecules, 2020, 25, 463.	1.7	21
30	Direct comparison of [¹⁸F]MH.MZ and [¹⁸F]altanserin for 5â€HT_{2A} receptor imaging with PET. Synapse, 2013, 67, 328-337.	0.6	20
31	Insights into Elution of Anion Exchange Cartridges: Opening the Path toward Aliphatic ¹⁸F-Radiolabeling of Base-Sensitive Tracers. ACS Pharmacology and Translational Science, 2021, 4, 1556-1566.	2.5	20
32	Autoradiography as a Simple and Powerful Method for Visualization and Characterization of Pharmacological Targets. Journal of Visualized Experiments, 2019, , .	0.2	19
33	Synthesis and evaluation of 18F-labeled 5-HT2A receptor agonists as PET ligands. Nuclear Medicine and Biology, 2016, 43, 455-462.	0.3	18
34	In Vivo Veritas: ¹⁸F-Radiolabeled Glycomimetics Allow Insights into the Pharmacological Fate of Galectin-3 Inhibitors. Journal of Medicinal Chemistry, 2020, 63, 747-755.	2.9	18
35	Current radiosynthesis strategies for 5â€HT_{2A} receptor PET tracers. Journal of Labelled Compounds and Radiopharmaceuticals, 2015, 58, 265-273.	0.5	17
36	Improved radiosynthesis and preliminary in vivo evaluation of the 11C-labeled tetrazine [11C]AE-1 for pretargeted PET imaging. Bioorganic and Medicinal Chemistry Letters, 2019, 29, 986-990.	1.0	16

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37	Evaluation of [64Cu]Cu-NOTA-PEG7-H-Tz for Pretargeted Imaging in LS174T Xenograftsâ€"Comparison to [111In]In-DOTA-PEG11-BisPy-Tz. Molecules, 2021, 26, 544.	1.7	16
38	Synaptic Density and Neuronal Metabolic Function Measured by Positron Emission Tomography in the Unilateral 6-OHDA Rat Model of Parkinsonâ€™s Disease. Frontiers in Synaptic Neuroscience, 2021, 13, 715811.	1.3	16
39	11C-labeling and preliminary evaluation of pimavanserin as a 5-HT2A receptor PET-radioligand. Bioorganic and Medicinal Chemistry Letters, 2015, 25, 1053-1056.	1.0	15
40	Quantification accuracy of a new HRRT high throughput rat hotel using transmission-based attenuation correction: A phantom study. , 2016, , .		14
41	Towards selective CNS PET imaging of the 5-HT7 receptor system: Past, present and future. Neuropharmacology, 2020, 172, 107830.	2.0	14
42	Development of 18F-Labeled Bispyridyl Tetrazines for In Vivo Pretargeted PET Imaging. Pharmaceuticals, 2022, 15, 245.	1.7	14
43	Labeling and preliminary in vivo evaluation of the 5-HT7 receptor selective agonist [11C]E-55888. Bioorganic and Medicinal Chemistry Letters, 2015, 25, 1901-1904.	1.0	13
44	Convergent 18F-labeling and evaluation of N-benzyl-phenethylamines as 5-HT2A receptor PET ligands. Bioorganic and Medicinal Chemistry, 2016, 24, 5353-5356.	1.4	13
45	Aliphatic ¹⁸Fâ€Radiofluorination: Recent Advances in the Labeling of Baseâ€Sensitive Substrates**. ChemMedChem, 2021, 16, 2612-2622.	1.6	13
46	Evaluation of [¹⁸F]2FP3 in pigs and nonâ€human primates. Journal of Labelled Compounds and Radiopharmaceuticals, 2019, 62, 34-42.	0.5	12
47	Blocking of efflux transporters in rats improves translational validation of brain radioligands. EJNMMI Research, 2020, 10, 124.	1.1	12
48	Accelerating preclinical PET-screening: reductive amination with [11C]methoxybenzaldehydes. RSC Advances, 2014, 4, 21347-21350.	1.7	10
49	Classics in Neuroimaging: The Serotonergic 2A Receptor Systemâ€"from Discovery to Modern Molecular Imaging. ACS Chemical Neuroscience, 2018, 9, 1226-1229.	1.7	10
50	Synthesis, Radiolabeling, and in Vitro and in Vivo Evaluation of [¹⁸F]ENL30: A Potential PET Radiotracer for the 5-HT₇ Receptor. ACS Omega, 2019, 4, 7344-7353.	1.6	10
51	One-Step Synthesis of N-Succinimidyl-4-[18F]Fluorobenzoate ([18F]SFB). Molecules, 2019, 24, 3436.	1.7	10
52	Synergistic Experimental and Computational Investigation of the Bioorthogonal Reactivity of Substituted Aryltetrazines. Bioconjugate Chemistry, 2022, 33, 608-624.	1.8	10
53	Recent Advances in the Development of Tetrazine Ligation Tools for Pretargeted Nuclear Imaging. Pharmaceuticals, 2022, 15, 685.	1.7	10
54	Application of advanced brain positron emission tomographyâ€"based molecular imaging for a biological framework in neurodegenerative proteinopathies. Alzheimer's and Dementia: Diagnosis, Assessment and Disease Monitoring, 2019, 11, 327-332.	1.2	9

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55	Development and Evaluation of Two Potential 5-HT₇ Receptor PET Tracers: [¹⁸F]ENL09 and [¹⁸F]ENL10. ACS Chemical Neuroscience, 2019, 10, 3961-3968.	1.7	9
56	Fluorine-18 Radiolabeling Strategiesâ€"Advantages and Disadvantages of Currently Applied Labeling Methods. , 2019, , 29-103.		9
57	Desorption Electrospray Ionization Mass Spectrometry Imaging of Cimbi-36, a 5-HT2A Receptor Agonist, with Direct Comparison to Autoradiography and Positron Emission Tomography. Molecular Imaging and Biology, 2021, 23, 676-685.	1.3	9
58	Synthesis of novel WAY 100635 derivatives containing a norbornene group and radiofluorination of [18F]AH1.MZ as a serotonin 5-HT1Areceptor antagonist for molecular imaging. Journal of Labelled Compounds and Radiopharmaceuticals, 2009, 52, 201-207.	0.5	8
59	Radiosynthesis and Evaluation of [¹¹C]3-Hydroxycyclopent-1-enecarboxylic Acid as Potential PET Ligand for the High-Affinity Î³-Hydroxybutyric Acid Binding Sites. ACS Chemical Neuroscience, 2017, 8, 22-27.	1.7	8
60	In Vitro and In Vivo Characterization of Dibenzothiophene Derivatives [125I]Iodo-ASEM and [18F]ASEM as Radiotracers of Homo- and Heteromeric Î±7 Nicotinic Acetylcholine Receptors. Molecules, 2020, 25, 1425.	1.7	8
61	[¹¹C]Carboxylated Tetrazines for Facile Labeling of Transâ€Cycloocteneâ€Functionalized PeptoBrushes. Macromolecular Rapid Communications, 2022, 43, e2100655.	2.0	8
62	Synthesis and Pharmacological Evaluation of [¹¹C]4-Methoxy-N-[2-(thiophen-2-yl)imidazo[1,2-a]pyridin-3-yl]benzamide as a Brain Penetrant PET Ligand Selective for the Î´-Subunit-Containing Î³-Aminobutyric Acid Type A Receptors. ACS Omega, 2019, 4, 8846-8851.	1.6	7
63	Training the next generation of radiopharmaceutical scientists. Nuclear Medicine and Biology, 2020, 88-89, 10-13.	0.3	7
64	Direct radiofluorination of [¹⁸F]MH.MZ for 5â€HT_{2A} receptor molecular imaging with PET. Journal of Labelled Compounds and Radiopharmaceuticals, 2012, 55, 354-358.	0.5	6
65	Convenient Entry to ¹⁸Fâ€Labeled Amines through the Staudinger Reduction. European Journal of Organic Chemistry, 2019, 2019, 1722-1725.	1.2	6
66	Characterization of the serotonin 2A receptor selective PET tracer (R)-[18F]MH.MZ in the human brain. European Journal of Nuclear Medicine and Molecular Imaging, 2020, 47, 355-365.	3.3	6
67	Radiolabeling of a polypeptide polymer for intratumoral delivery of alpha-particle emitter, 225Ac, and beta-particle emitter, 177Lu. Nuclear Medicine and Biology, 2022, 104-105, 11-21.	0.3	6
68	Research Letter: Structural Combination of Established 5â€HT_{2A} Receptor Ligands: New Aspects of the Binding Mode. Chemical Biology and Drug Design, 2010, 76, 361-366.	1.5	5
69	P-Glycoprotein Influence on the Brain Uptake of a 5-HT_{2A} Ligand: [¹⁸F]MH.MZ. Neuropsychobiology, 2011, 63, 183-190.	0.9	5
70	Development of a simple proton nuclear magnetic resonance-based procedure to estimate the approximate distribution coefficient at physiological pH (log D 7.4): Evaluation and comparison to existing practices. Bioorganic and Medicinal Chemistry Letters, 2017, 27, 319-322.	1.0	5
71	PET Imaging of the 5-HT2A Receptor System: A Tool to Study the Receptorâ€™s In Vivo Brain Function. , 2018, , 85-134.		5
72	Optimization of Direct Aromatic 18F-Labeling of Tetrazines. Molecules, 2022, 27, 4022.	1.7	5

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73	Fully Automated GMP-Compliant Synthesis of [18F]FE-PE2I. Pharmaceuticals, 2021, 14, 601.	1.7	4
74	Surface Adsorption of the Alpha-Emitter Astatine-211 to Gold Nanoparticles Is Stable In Vivo and Potentially Useful in Radionuclide Therapy. Journal of Nanotheranostics, 2021, 2, 196-207.	1.7	4
75	Radiosynthesis and preclinical evaluation of [¹¹C]Cimbiâ€701 â€“ Towards the imaging of cerebral 5â€HT₇ receptors. Journal of Labelled Compounds and Radiopharmaceuticals, 2020, 63, 46-55.	0.5	3
76	Radionuclide Imaging for Neuroscience: Current Opinion and Future Directions. Molecular Imaging, 2020, 19, 153601212093639.	0.7	3
77	Pretargeted Theranostics. , 0, , .		3
78	Synthesis, radiofluorination, and preliminary evaluation of the potential 5â€HT_{2A} receptor agonists [¹⁸F]Cimbiâ€92 and [¹⁸F]Cimbiâ€150. Journal of Labelled Compounds and Radiopharmaceuticals, 2017, 60, 586-591.	0.5	2
79	Multifunctional Clickable Reagents for Rapid Bioorthogonal Astatination and Radioâ€Crosslinking. ChemPlusChem, 2019, 84, 774-774.	1.3	2
80	Optimization and Evaluation of Al18F Labeling Using a NOTAâ€"or RESCA1-Conjugated AE105 Peptide Antagonist of uPAR. Frontiers in Nuclear Medicine, 2021, 1, .	0.7	2
81	Fragment-based labeling using condensation reactions of six potential 5-HT7R PET tracers. Journal of Radioanalytical and Nuclear Chemistry, 2020, 326, 1749-1762.	0.7	0