# William Frey Ii

List of Publications by Year
in descending order

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Version: 2024-02-01

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|---|---|---|---|
| 113 papers | 11,258 citations | 41344 49 h-index | 29157 104 g-index |
| 128 all docs | 128 docs citations | 128 times ranked | 10205 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Intranasal delivery to the central nervous system: Mechanisms and experimental considerations. Journal of Pharmaceutical Sciences, 2010, 99, 1654-1673. | 3.3 | 939 |
| 2 | Delivery of insulin-like growth factor-I to the rat brain and spinal cord along olfactory and trigeminal pathways following intranasal administration. Neuroscience, 2004, 127, 481-496. | 2.3 | 788 |
| 3 | Effects of intranasal insulin on cognition in memory-impaired older adults: Modulation by APOE genotype. Neurobiology of Aging, 2006, 27, 451-458. | 3.1 | 560 |
| 4 | Intranasal delivery bypasses the blood-brain barrier to target therapeutic agents to the central nervous system and treat neurodegenerative disease. BMC Neuroscience, 2008, 9, S5. | 1.9 | 509 |
| 5 | Intranasal Insulin Administration Dose-Dependently Modulates Verbal Memory and Plasma Amyloid-Î² in Memory-Impaired Older Adults. Journal of Alzheimer's Disease, 2008, 13, 323-331. | 2.6 | 477 |
| 6 | Delivery of Neurotrophic Factors to the Central Nervous System. Clinical Pharmacokinetics, 2001, 40, 907-946. | 3.5 | 415 |
| 7 | Intranasal Insulin as a Treatment for Alzheimerâ€™s Disease: A Review of Basic Research and Clinical Evidence. CNS Drugs, 2013, 27, 505-514. | 5.9 | 402 |
| 8 | Quantitative analysis of the olfactory pathway for drug delivery to the brain. Brain Research, 1995, 692, 278-282. | 2.2 | 306 |
| 9 | Intranasal delivery of cells to the brain. European Journal of Cell Biology, 2009, 88, 315-324. | 3.6 | 299 |
| 10 | Intranasal Treatment of Central Nervous System Dysfunction in Humans. Pharmaceutical Research, 2013, 30, 2475-2484. | 3.5 | 253 |
| 11 | Mechanisms of mitochondrial dysfunction and energy deficiency in Alzheimerâ€™s disease. Mitochondrion, 2007, 7, 297-310. | 3.4 | 239 |
| 12 | A role for heme in Alzheimer's disease: Heme binds amyloid Î² and has altered metabolism. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 11153-11158. | 7.1 | 228 |
| 13 | Therapeutic Efficacy of Intranasally Delivered Mesenchymal Stem Cells in a Rat Model of Parkinson Disease. Rejuvenation Research, 2011, 14, 3-16. | 1.8 | 225 |
| 14 | Intranasal administration of insulin-like growth factor-I bypasses the bloodâ€“brain barrier and protects against focal cerebral ischemic damage. Journal of the Neurological Sciences, 2001, 187, 91-97. | 0.6 | 216 |
| 15 | Delivery of Nerve Growth Factor to the Brain via the Olfactory Pathway. Journal of Alzheimer's Disease, 1998, 1, 35-44. | 2.6 | 211 |
| 16 | Intranasal administration of interferon beta bypasses the bloodâ€“brain barrier to target the central nervous system and cervical lymph nodes: a non-invasive treatment strategy for multiple sclerosis. Journal of Neuroimmunology, 2004, 151, 66-77. | 2.3 | 211 |
| 17 | Delivery of interferon-Î² to the monkey nervous system following intranasal administration. Neuroscience, 2008, 152, 785-797. | 2.3 | 210 |
| 18 | Delivery of<sup>125</sup>I-NGF to the Brain via the Olfactory Route. Drug Delivery, 1997, 4, 87-92. | 5.7 | 191 |

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|---|---|---|---|
| 19 | Intranasal Deferoxamine Provides Increased Brain Exposure and Significant Protection in Rat Ischemic Stroke. Journal of Pharmacology and Experimental Therapeutics, 2009, 330, 679-686. | 2.5 | 188 |
| 20 | Seizures in Alzheimer's Disease: Clinicopathologic Study. Journal of Geriatric Psychiatry and Neurology, 1994, 7, 230-233. | 2.3 | 154 |
| 21 | Brain Insulin Signaling and Alzheimer's Disease: Current Evidence and Future Directions. Molecular Neurobiology, 2012, 46, 4-10. | 4.0 | 145 |
| 22 | Chlamydophila (Chlamydia) pneumoniaein the Alzheimer's brain. FEMS Immunology and Medical Microbiology, 2006, 48, 355-366. | 2.7 | 140 |
| 23 | Protective Effects of Intranasal Losartan in the APP/PS1 Transgenic Mouse Model of Alzheimer Disease. Rejuvenation Research, 2010, 13, 195-201. | 1.8 | 139 |
| 24 | Intranasal delivery of neurotrophic factors BDNF, CNTF, EPO, and NT-4 to the CNS. Journal of Drug Targeting, 2010, 18, 179-190. | 4.4 | 138 |
| 25 | Non-invasive intranasal insulin-like growth factor-I reduces infarct volume and improves neurologic function in rats following middle cerebral artery occlusion. Neuroscience Letters, 2001, 308, 91-94. | 2.1 | 136 |
| 26 | Trigeminal Pathways Deliver a Low Molecular Weight Drug from the Nose to the Brain and Orofacial Structures. Molecular Pharmaceutics, 2010, 7, 884-893. | 4.6 | 136 |
| 27 | Intranasal insulin as a therapeutic option in the treatment of cognitive impairments. Experimental Gerontology, 2011, 46, 112-115. | 2.8 | 134 |
| 28 | New therapeutic approach for brain tumors: Intranasal delivery of telomerase inhibitor GRN163. Neuro-Oncology, 2008, 10, 112-120. | 1.2 | 126 |
| 29 | Intranasal delivery of transforming growth factor-beta1 in mice after stroke reduces infarct volume and increases neurogenesis in the subventricular zone. BMC Neuroscience, 2008, 9, 117. | 1.9 | 120 |
| 30 | Cannabinoid-Mediated Modulation of Neuropathic Pain and Microglial Accumulation in a Model of Murine Type I Diabetic Peripheral Neuropathic Pain. Molecular Pain, 2010, 6, 1744-8069-6-16. | 2.1 | 116 |
| 31 | Intranasal Delivery of Bone Marrow-Derived Mesenchymal Stem Cells, Macrophages, and Microglia to the Brain in Mouse Models of Alzheimer's and Parkinson's Disease. Cell Transplantation, 2014, 23, 123-139. | 2.5 | 114 |
| 32 | Intranasal drug targeting of hypocretin-1 (orexin-A) to the central nervous system. Journal of Pharmaceutical Sciences, 2009, 98, 2501-2515. | 3.3 | 106 |
| 33 | Clinically Diagnosed Alzheimer Disease. Alzheimer Disease and Associated Disorders, 1992, 6, 35-43. | 1.3 | 105 |
| 34 | Strategies for Intranasal Delivery of Therapeutics for the Prevention and Treatment of NeuroAIDS. Journal of NeuroImmune Pharmacology, 2007, 2, 81-86. | 4.1 | 102 |
| 35 | Intranasal delivery of insulin via the olfactory nerve pathway. Journal of Pharmacy and Pharmacology, 2012, 64, 1709-1714. | 2.4 | 90 |
| 36 | Intranasal Delivery of Caspase-9 Inhibitor Reduces Caspase-6-Dependent Axon/Neuron Loss and Improves Neurological Function after Stroke. Journal of Neuroscience, 2011, 31, 8894-8904. | 3.6 | 84 |

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|---|---|---|---|
| 37 | Human and rodent amyloid-Î² peptides differentially bind heme: Relevance to the human susceptibility to Alzheimerâ€™s disease. Archives of Biochemistry and Biophysics, 2009, 487, 59-65. | 3.0 | 82 |
| 38 | Novel Vasoconstrictor Formulation to Enhance Intranasal Targeting of Neuropeptide Therapeutics to the Central Nervous System. Journal of Pharmacology and Experimental Therapeutics, 2009, 328, 312-320. | 2.5 | 77 |
| 39 | The window of opportunity for treatment of focal cerebral ischemic damage with noninvasive intranasal insulin-like growth factor-I in rats. Journal of Stroke and Cerebrovascular Diseases, 2004, 13, 16-23. | 1.6 | 74 |
| 40 | d-Aspartate in Human Brain. Journal of Neurochemistry, 1987, 48, 510-515. | 3.9 | 69 |
| 41 | Intranasal Insulin Ameliorates Experimental Diabetic Neuropathy. Diabetes, 2009, 58, 934-945. | 0.6 | 69 |
| 42 | Intranasal deferoxamine improves performance in radial arm water maze, stabilizes HIF-1Î±, and phosphorylates GSK3Î² in P301L tau transgenic mice. Experimental Brain Research, 2012, 219, 381-390. | 1.5 | 66 |
| 43 | Oxytocin and Migraine Headache. Headache, 2017, 57, 64-75. | 3.9 | 61 |
| 44 | Intranasal insulin treatment of an experimental model of moderate traumatic brain injury. Journal of Cerebral Blood Flow and Metabolism, 2017, 37, 3203-3218. | 4.3 | 60 |
| 45 | Freed-amino acids in human cerebrospinal fluid of alzheimer disease, multiple sclerosis, and healthy control subjects. Molecular and Chemical Neuropathology, 1994, 23, 115-124. | 1.0 | 59 |
| 46 | Inactivation of the human brain muscarinic acetylcholine receptor by oxidative damage catalyzed by a low molecular weight endogenous inhibitor from Alzheimerâ€™s brain is prevented by pyrophosphate analogs, bioflavonoids and other antioxidants. Brain Research, 2002, 950, 10-20. | 2.2 | 56 |
| 47 | Oxytocin receptor: Expression in the trigeminal nociceptive system and potential role in the treatment of headache disorders. Cephalalgia, 2016, 36, 943-950. | 3.9 | 53 |
| 48 | Intranasal delivery of siRNA to the olfactory bulbs of mice via the olfactory nerve pathway. Neuroscience Letters, 2012, 513, 193-197. | 2.1 | 51 |
| 49 | Intranasal deferoxamine engages multiple pathways to decrease memory loss in the APP/PS1 model of amyloid accumulation. Neuroscience Letters, 2015, 584, 362-367. | 2.1 | 50 |
| 50 | Intranasal Adeno-Associated Virus Mediated Gene Delivery and Expression of Human Iduronidase in the Central Nervous System: A Noninvasive and Effective Approach for Prevention of Neurologic Disease in Mucopolysaccharidosis Type I. Human Gene Therapy, 2017, 28, 576-587. | 2.7 | 50 |
| 51 | A Single-Dose Pilot Trial of Intranasal Rapid-Acting Insulin in ApolipoproteinÂE4 Carriers with Mildâ€“Moderate Alzheimerâ€™s Disease. CNS Drugs, 2014, 28, 1185-1189. | 5.9 | 47 |
| 52 | Apoptotic Gene Expression in Alzheimer's Disease Hippocampal Tissue. American Journal of Alzheimer's Disease and Other Dementias, 2007, 22, 319-328. | 1.9 | 46 |
| 53 | Lysosomal enzyme can bypass the bloodâ€“brain barrier and reach the CNS following intranasal administration. Molecular Genetics and Metabolism, 2012, 106, 131-134. | 1.1 | 45 |
| 54 | Human brain tubulin purification: Decrease in soluble tubulin with age. Neurochemical Research, 1985, 10, 1-18. | 3.3 | 43 |

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|---|---|---|---|
| 55 | Subacute intranasal administration of tissue plasminogen activator increases functional recovery and axonal remodeling after stroke in rats. Neurobiology of Disease, 2012, 45, 804-809. | 4.4 | 42 |
| 56 | Preventing Î²-amyloid fibrillization and deposition: Î²-sheet breakers and pathological chaperone inhibitors. BMC Neuroscience, 2008, 9, S5. | 1.9 | 41 |
| 57 | Intranasally delivered TGF-Î²1 enters brain and regulates gene expressions of its receptors in rats. Brain Research Bulletin, 2007, 74, 271-277. | 3.0 | 40 |
| 58 | Racemized D-aspartate in Alzheimer neurofibrillary tangles. Brain Research Bulletin, 1992, 28, 127-131. | 3.0 | 39 |
| 59 | Altered aspartate in Alzheimer neurofibrillary tangles. Neurochemical Research, 1992, 17, 187-191. | 3.3 | 39 |
| 60 | Intranasal administration delivers peptoids to the rat central nervous system. Neuroscience Letters, 2008, 439, 30-33. | 2.1 | 38 |
| 61 | Glial fibrillary acidic protein and Alzheimer's disease. Neurochemical Research, 1985, 10, 1567-1576. | 3.3 | 35 |
| 62 | Anandamides Inhibit Binding to the Muscarinic Acetylcholine Receptor. Journal of Molecular Neuroscience, 1999, 13, 55-62. | 2.3 | 35 |
| 63 | Intranasal delivery of deferoxamine reduces spatial memory loss in APP/PS1 mice. Drug Delivery and Translational Research, 2012, 2, 160-168. | 5.8 | 34 |
| 64 | Heme from Alzheimer's brain inhibits muscarinic receptor binding via thiyl radical generation1An abstract of some of these findings was published in Mol. Biol. Cell, 7:S (1996) #3765.1. Brain Research, 1997, 764, 93-100. | 2.2 | 33 |
| 65 | Intranasal administration of a PARG inhibitor profoundly decreases ischemic brain injury. Frontiers in Bioscience - Landmark, 2007, 12, 4986. | 3.0 | 32 |
| 66 | Intranasally-administered deferoxamine mitigates toxicity of 6-OHDA in a rat model of Parkinson×³s disease. Brain Research, 2014, 1574, 96-104. | 2.2 | 31 |
| 67 | Intranasal delivery of obidoxime to the brain prevents mortality and CNS damage from organophosphate poisoning. NeuroToxicology, 2016, 53, 64-73. | 3.0 | 31 |
| 68 | Intranasal Losartan Decreases Perivascular Beta Amyloid, Inflammation, and the Decline of Neurogenesis in Hypertensive Rats. Neurotherapeutics, 2019, 16, 725-740. | 4.4 | 30 |
| 69 | Intranasal delivery of low-dose insulin ameliorates motor dysfunction and dopaminergic cell death in a 6-OHDA rat model of Parkinsonâ€™s Disease. Neuroscience Letters, 2020, 714, 134567. | 2.1 | 30 |
| 70 | Motor End Plate Innervation Loss in Diabetes and the Role of Insulin. Journal of Neuropathology and Experimental Neurology, 2011, 70, 323-339. | 1.7 | 29 |
| 71 | Intranasal delivery of growth differentiation factor 5 to the central nervous system. Drug Delivery, 2012, 19, 149-154. | 5.7 | 27 |
| 72 | Mechanisms of Intranasal Deferoxamine in Neurodegenerative and Neurovascular Disease. Pharmaceuticals, 2021, 14, 95. | 3.8 | 27 |

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|---|---|---|---|
| 73 | Cell motility and migration as determinants of stem cell efficacy. EBioMedicine, 2020, 60, 102989. | 6.1 | 26 |
| 74 | Nasal oxytocin for the treatment of psychiatric disorders and pain: achieving meaningful brain concentrations. Translational Psychiatry, 2021, 11, 388. | 4.8 | 23 |
| 75 | Intranasal treatment of neurodegenerative diseases and stroke. Frontiers in Bioscience - Scholar, 2012, S4, 74. | 2.1 | 22 |
| 76 | Effect of Dopamine on Activation of Rat Striatal Adenylate Cyclase by Free Mg2+and Guanyl Nucleotides. Journal of Neurochemistry, 1980, 34, 594-601. | 3.9 | 21 |
| 77 | Endogenous Alzheimer's brain factor and oxidized glutathione inhibit antagonist binding to the muscarinic receptor. Brain Research, 1996, 714, 87-94. | 2.2 | 21 |
| 78 | Intranasal delivery of insulin and a nitric oxide synthase inhibitor in an experimental model of amyotrophic lateral sclerosis. Neuroscience, 2008, 157, 908-925. | 2.3 | 21 |
| 79 | Intranasal Phosphoramidon Increases Beta-Amyloid Levels in Wild-Type and NEP/NEP2-Deficient Mice. Journal of Molecular Neuroscience, 2011, 43, 424-427. | 2.3 | 21 |
| 80 | Comparative Effectiveness of Intracerebroventricular, Intrathecal, and Intranasal Routes of AAV9 Vector Administration for Genetic Therapy of Neurologic Disease in Murine Mucopolysaccharidosis Type I. Frontiers in Molecular Neuroscience, 2021, 14, 618360. | 2.9 | 21 |
| 81 | Food consumption and activity levels increase in rats following intranasal Hypocretin-1. Neuroscience Letters, 2016, 627, 155-159. | 2.1 | 20 |
| 82 | Insulin to treat Alzheimerâ€™s disease: just follow your nose?. Expert Review of Clinical Pharmacology, 2012, 5, 17-20. | 3.1 | 19 |
| 83 | Losartan Improves Memory, Neurogenesis and Cell Motility in Transgenic Alzheimerâ€™s Mice. Pharmaceuticals, 2021, 14, 166. | 3.8 | 19 |
| 84 | Postmortem Stability of Dopamine-Sensitive Adenylate Cyclase, Guanylate Cyclase, ATPase, and GTPase in Rat Striatum. Journal of Neurochemistry, 1981, 37, 1535-1539. | 3.9 | 17 |
| 85 | Polyethylene glycol interferes with protein molecular weight determinations by gel filtration. Analytical Biochemistry, 1984, 138, 137-140. | 2.4 | 16 |
| 86 | Inhibition of antagonist and agonist binding to the human brain muscarinic receptor by arachidonic acid. Journal of Molecular Neuroscience, 1998, 10, 209-217. | 2.3 | 16 |
| 87 | Seasonal Distribution of Births in Alzheimer's Disease. International Psychogeriatrics, 1991, 3, 53-58. | 1.0 | 14 |
| 88 | Intranasal Insulin to Treat and Protect Against Posttraumatic Stress Disorder. Journal of Nervous and Mental Disease, 2013, 201, 638-639. | 1.0 | 14 |
| 89 | Catecholamine-Sensitive Guanylate Cyclase from Human Caudate Nucleus. Journal of Neurochemistry, 1980, 35, 1418-1430. | 3.9 | 13 |
| 90 | Inhibitor of antagonist binding to the muscarinic receptor is elevated in Alzheimer's brain. Brain Research, 1994, 655, 153-160. | 2.2 | 13 |

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|---|---|---|---|
| 91 | Intranasal Tat Alters Gene Expression in the Mouse Brain. Journal of NeuroImmune Pharmacology, 2007, 2, 87-92. | 4.1 | 13 |
| 92 | Intranasal Insulin: a Treatment Strategy for Addiction. Neurotherapeutics, 2020, 17, 105-115. | 4.4 | 12 |
| 93 | Intranasal deferoxamine can improve memory in healthy C57 mice, suggesting a partially nonâ€diseaseâ€specific pathway of functional neurologic improvement. Brain and Behavior, 2020, 10, e01536. | 2.2 | 11 |
| 94 | Neuropathologically Confirmed Alzheimer's Disease: Clinical Diagnoses in 394 Cases. Topics in Geriatrics, 1991, 4, 26-29. | 0.8 | 9 |
| 95 | Intranasal delivery of Thyroid hormones in MCT8 deficiency. PLoS ONE, 2020, 15, e0236113. | 2.5 | 9 |
| 96 | Antifibrotic Effects of Amyloid-Beta and Its Loss in Cirrhotic Liver. Cells, 2020, 9, 452. | 4.1 | 8 |
| 97 | Previously reported nerve growth factor levels are underestimated due to an incomplete release from receptors and interaction with standard curve media. Brain Research, 1999, 842, 206-210. | 2.2 | 7 |
| 98 | Ionic regulation of antagonist binding to the human muscarinic cholinergic receptor of caudate nucleus. Journal of Psychiatric Research, 1982, 17, 275-283. | 3.1 | 6 |
| 99 | Inhibition of Ligand Binding to G Protein-Coupled Receptors by Arachidonic Acid. Journal of Molecular Neuroscience, 2005, 27, 185-194. | 2.3 | 6 |
| 100 | Brain Glucose Hypometabolism and Iron Accumulation in Different Brain Regions in Alzheimerâ€™s and Parkinsonâ€™s Diseases. Pharmaceuticals, 2022, 15, 551. | 3.8 | 6 |
| 101 | Pharmacokinetics in Rat of P8, a Peptide Drug Candidate for the Treatment of Alzheimerâ€™s Disease: Stability and Delivery to the Brain1. Journal of Alzheimer's Disease Reports, 2018, 2, 169-179. | 2.2 | 5 |
| 102 | A non-invasive direct nose to brain drug delivery platform vs. invasive brain delivery approach: patient-centered care impact analysis. Drug Delivery, 2022, 29, 1754-1763. | 5.7 | 4 |
| 103 | Clinical Characteristics of Chronic Creutzfeldt-Jakob Disease. Journal of Geriatric Psychiatry and Neurology, 1994, 7, 206-208. | 2.3 | 3 |
| 104 | Quantifying Intranasally Administered Deferoxamine in Rat Brain Tissue with Mass Spectrometry. ACS Chemical Neuroscience, 2019, 10, 4571-4578. | 3.5 | 3 |
| 105 | P2-313: Intranasal deferoxamine prevents memory loss in the intracerebroventricular streptozotocin rat model of Alzheimer's disease. , 2015, 11, P613-P614. | | 2 |
| 106 | Stimulation of guanylate cyclase by EDTA and other chelating agents. Biochimica Et Biophysica Acta - Biomembranes, 1981, 658, 369-376. | 2.6 | 1 |
| 107 | The clinical diagnosis of Alzheimer's disease without the use of head imaging studies. A cliniconeuropathological study. Journal of Alzheimer's Disease, 2004, 5, 463-465. | 2.6 | 1 |
| 108 | A phase II, single center, randomized, doubleâ€blind, placeboâ€controlled study of the safety and therapeutic effectiveness of intranasal glulisine in amnestic mild cognitive impairment and probable mild Alzheimerâ€™s disease. Alzheimer's and Dementia, 2020, 16, e036840. | 0.8 | 1 |

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|---|---|---|---|
| 109 | Intranasal Deliveryâ€"A New Therapeutic Approach for Brain Tumors. US Neurology, 2008, 04, 43. | 0.2 | 1 |
| 110 | The Tears of the Physician. JAMA - Journal of the American Medical Association, 1990, 263, 661. | 7.4 | 0 |
| 111 | Intranasal Insulin Ameliorates Experimental Diabetic Neuropathy. Diabetes 2009;58:934â€"945. DOI: 10.2337/db08-1287. Diabetes, 2014, 63, 1817.2-1817. | 0.6 | 0 |
| 112 | 706. Non-Invasive Intranasal Administration of AAV9-Iduronidase Prevents Emergence of Neurologic Disease and Neurocognitive Dysfunction in a Murine Model of Mucopolysaccharidosis Type I. Molecular Therapy, 2015, 23, S281. | 8.2 | 0 |
| 113 | 25. Intranasal Gene Delivery of AAV Iduronidase: An Effective and Non-Invasive Approach for Treatmentof CNS Disease in a Murine Model of MPS Type I. Molecular Therapy, 2016, 24, S12. | 8.2 | 0 |