Curriculum Vitae

Peter Manza, Ph.D.
Assistant Professor
Kahlert Institute for Addiction Medicine, Department of Psychiatry
University of Maryland School of Medicine

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Education

2007-2011 *B.A.*, Biology and Psychology, University of Rochester (UR)
2011-2013 *M.A.,* Psychology, Stony Brook University (SBU)
2011-2016 *Ph.D.,* Integrative Neuroscience, SBU, Thesis Advisor: Hoi-Chung Leung, "Dopaminergic basis of cognitive control in Parkinson's disease"

Post Graduate Education and Training

2017-2020 Postdoctoral Fellow, Laboratory of Neuroimaging, NIAAA, NIH
2020-2024 Research Fellow, Laboratory of Neuroimaging, NIAAA, NIH

Employment History

Other Employment

2011-2016 Graduate Research Assistant, Department of Integrative Neuroscience, SBU

Honors and Awards

2007-2011 Dean's Scholarship for Merit, UR
2010 REACH research award, UR
2011-2016 Full Tuition Scholarship, SBU
2014 Excellence in Research Award, SBU
2015 1st place research proposal, Parkinson's disease workshop, Movement Disorder Society
2016 Biopsychology Founders Award, SBU
2016 Distinguished Travel Award, SBU
2018 Center on Compulsive Behaviors Fellowship, NIH Intramural Research Program
2019 Fellowship award winner, Kavli Summer Institute on Cognitive Neuroscience
2019 Early Career Investigator Award, Society of Biological Psychiatry (SOBP)
2020 Travel Award, Behavior, Biology, and Chemistry: Translational Research in Addiction
2022 Travel Award, Behavior, Biology, and Chemistry: Translational Research in Addiction
2022 Fellows Award for Research Excellence, NIH Intramural Research Program
2022 Best Presentation Award, BrainBox Brain Stimulation and Brain Imaging Conference
2022 "Hot Topic" Talk, American College on Neuropsychopharmacology (ACNP)
2023 Travel Award, Winter Conference on Brain Research
2023 Conan Kornetsky Travel Fellow, Winter Conference on Brain Research
2023 Travel Award, Resting State Brain Connectivity Conference
2024 Travel Award, ACNP
2024 Athina Markou Award, ACNP

Professional Society Memberships

2011-present Member, Society for Neuroscience
2015-2017 Member, Association for Psychological Science
2015-2017 Member, Movement Disorders Society
2016-2018 Member, Cognitive Neuroscience Society
2016-2018 Member, American Association for the Advancement of Science (AAAS)
2024-present Associate Member, ACNP

Institutional Service

NIAAA
2017-present Organizer, NIAAA Clinical Center Seminar Series
2021-present Member, NIAAA Staff Growth Committee

Diversity Equity, Inclusion (DEI) and Antiracism Awareness
2017-present Annual Title IX and Non-Discrimination Training (NIAAA)
2020 Co-founder, NIH Race and Medicine Interest Group

National Service

2012-present Ad-hoc reviewer: American Journal of Psychiatry (1x/year), Molecular Psychiatry (1x/year), Brain (1x/year), Biological Psychiatry (1x/year), Neuropsychopharmacology (2x/year), Alcoholism: Clinical and Experimental Research (1x/year)

Teaching Service

Undergraduate Student Teaching/Mentoring/Advising
2011-2016 Teacher and teaching assistant, Department of Psychology, SBU
Instructor, Research Methods, Statistics, and Writing; 30 students/semester
Teaching Assistant, Survey in Cognition and Perception Physiological Psychology; 100 students/semester
Teaching Assistant, Survey in BioPsychology; 200 students/semester
Teaching Assistant, Survey in Social Psychology; 100 students/semester
Teaching Assistant, Statistical Methods in Psychology Sensation and Perception; 50 students/semester
2011-2016 Mentor, undergraduate research assistants. 8 hours/week (year round)

Graduate / Post-Graduate Teaching
2015-2016 Laboratory Course Instructor, Analysis of Variance and Experimental Design; 30 students/semester
2017-2024 Research Mentor
3 post-baccalaureates/year, 4 hours/week each

Research Activities

Understanding how chronic drug use changes the brain chemistry and function. Use clinical trial designs with multimodal imaging, including simultaneous PET-fMRI, to test therapeutic interventions for

substance use disorder. Focus on medically underserved populations, including low-income, unhoused, racially diverse individuals with substance use disorder.

Grant Support

Active Grants or Contracts

01/15/25-01/15/27 PI, 75%
"Ketone supplementation for opioid use disorder"
NARSAD Brain & Behavior Research Foundation Young Investigator Grant
Annual Direct Costs: $35,000
Total Direct Costs: $70,000

03/01/23-12/31/24 PI, 50%
"Neural circuit selective for fast drug reward: a human-to-rodent reverse translational study"
NIH Center on Compulsive Behaviors Seed Grant
Annual Direct Costs: $30,000
Total Direct Costs: $60,000

Completed Grants or Contracts

09/01/18-09/01/19 PI, 75%
"Development of a novel task to investigate negative reinforcement choice behavior in humans"
NIH Center on Compulsive Behaviors Fellows Grant
Annual Direct Costs: $40,000
Total Direct Costs: $40,000

09/01/14-09/01/15 PI, 75%
"Investigating fronto-striatal circuitry in Parkinson's disease with Diffusion Imaging and fMRI"
Hartmann Foundation for Parkinson's Disease Research Pilot Grant
Annual Direct Costs: $20,000
Total Direct Costs: $20,000

Publications

Peer-reviewed journal articles

1. Yang L, Morland TB, Schmits K, Rawson E, Narasimhan P, Motelow JE, et al. A prospective study of loss of consciousness in epilepsy using virtual reality driving simulation and other video games. *Epilepsy Behav.* 2010;18(3):238-46. doi: 10.1016/j.yebeh.2010.04.011. PMID: 20537593. *(Collected data, assisted in data analysis and co-wrote the manuscript)*
2. **Manza P**, Hau CL, Leung HC. Alpha power gates relevant information during working memory updating. *J Neurosci.* 2014;34(17):5998-6002. doi: 10.1523/JNEUROSCI.4641-13.2014. PMID: 24760858.

3. **Manza P**, Zhang S, Hu S, Chao HH, Leung HC, Li CR. The effects of age on resting state functional connectivity of the basal ganglia from young to middle adulthood. *Neuroimage.* 2015;107:311-22. Epub 20141213. doi: 10.1016/j.neuroimage.2014.12.016. PMID: 25514518.
4. Kann S, Zhang S, **Manza P**, Leung HC, Li CR. Hemispheric lateralization of resting-state functional connectivity of the anterior insula: association with age, gender, and a novelty-seeking trait. *Brain Connect.* 2016;6(9):724-34. Epub 20160930. doi: 10.1089/brain.2016.0443. PMID: 27604154. *(Assisted in data analysis and co-wrote the manuscript)*
5. **Manza P**, Hu S, Chao HH, Zhang S, Leung HC, Li CR. A dual but asymmetric role of the dorsal anterior cingulate cortex in response inhibition and switching from a non-salient to salient action. *Neuroimage.* 2016;134:466-74. Epub 20160426. doi: 10.1016/j.neuroimage.2016.04.055. PMID: 27126003.
6. **Manza P**, Hu S, Ide JS, Farr OM, Zhang S, Leung HC, et al. The effects of methylphenidate on cerebral responses to conflict anticipation and unsigned prediction error in a stop-signal task. *J Psychopharmacol.* 2016;30(3):283-93. Epub 20160111. doi: 10.1177/0269881115625102. PMID: 26755547.
7. **Manza P**, Zhang S, Li CS, Leung HC. Resting-state functional connectivity of the striatum in early-stage Parkinson's disease: cognitive decline and motor symptomatology. *Hum Brain Mapp.* 2016;37(2):648-62. Epub 20151114. doi: 10.1002/hbm.23056. PMID: 26566885.
8. **Manza P**, Amandola M, Tatineni V, Li CR, Leung HC. Response inhibition in Parkinson's disease: a meta-analysis of dopaminergic medication and disease duration effects. *NPJ Parkinsons Dis.* 2017;3:23. Epub 20170707. doi: 10.1038/s41531-017-0024-2. PMID: 28702504.
9. **Manza P**, Schwartz G, Masson M, Kann S, Volkow ND, Li CR, et al. Levodopa improves response inhibition and enhances striatal activation in early-stage Parkinson's disease. *Neurobiol Aging.* 2018;66:12-22. Epub 20180210. doi: 10.1016/j.neurobiolaging.2018.02.003. PMID: 29501966.
10. **Manza P**, Tomasi D, Volkow ND. Subcortical local functional hyperconnectivity in cannabis dependence. *Biol Psychiatry Cogn Neurosci Neuroimaging.* 2018;3(3):285-93. Epub 20171122. doi: 10.1016/j.bpsc.2017.11.004. PMID: 29486870.
11. Shokri-Kojori E, Wang GJ, Wiers CE, Demiral SB, Guo M, Kim SW, et al. Beta-amyloid accumulation in the human brain after one night of sleep deprivation. *Proc Natl Acad Sci U S A.* 2018;115(17):4483-8. Epub 20180409. doi: 10.1073/pnas.1721694115. PMID: 29632177. *(Assisted in data analysis and co-wrote the manuscript)*
12. Yuan K, Yu D, Zhao M, Li M, Wang R, Li Y, et al. Abnormal frontostriatal tracts in young male tobacco smokers. *Neuroimage.* 2018;183:346-55. Epub 20180818. doi: 10.1016/j.neuroimage.2018.08.046. PMID: 30130644. *(Assisted in data analysis and co-wrote the manuscript)*
13. Yuan K, Zhao M, Yu D, **Manza P**, Volkow ND, Wang GJ, et al. Striato-cortical tracts predict 12-h abstinence-induced lapse in smokers. *Neuropsychopharmacology.* 2018;43(12):2452-8. Epub 20180815. doi: 10.1038/s41386-018-0182-x. PMID: 30131564. *(Assisted in data analysis and co-wrote the manuscript)*
14. Zehra A, Burns J, Liu CK, **Manza P**, Wiers CE, Volkow ND, et al. Cannabis addiction and the brain: a review. *J Neuroimmune Pharmacol.* 2018;13(4):438-52. Epub 20180319. doi: 10.1007/s11481-018-9782-9. PMID: 29556883. *(Conceived of topic and co-wrote the manuscript)*
15. Burns JA, Kroll DS, Feldman DE, Kure Liu C, **Manza P**, Wiers CE, et al. Molecular imaging of opioid and dopamine systems: insights into the pharmacogenetics of opioid use disorders. *Front Psychiatry.* 2019;10:626. Epub 20190918. doi: 10.3389/fpsyt.2019.00626. PMID: 31620026. *(Conceived of topic and co-wrote the manuscript)*
16. Demiral SB, Tomasi D, Wiers CE, **Manza P**, Shokri-Kojori E, Studentsova Y, et al. Methylphenidate's effects on thalamic metabolism and functional connectivity in cannabis abusers

and healthy controls. *Neuropsychopharmacology.* 2019;44(8):1389-97. Epub 20181201. doi: 10.1038/s41386-018-0287-2. PMID: 30504928. *(Assisted in data analysis and co-wrote the manuscript)*

17. Kure Liu C, Joseph PV, Feldman DE, Kroll DS, Burns JA, **Manza P**, et al. Brain imaging of taste perception in obesity: a review. *Curr Nutr Rep.* 2019;8(2):108-19. doi: 10.1007/s13668-019-0269-y. PMID: 30945140. *(Assisted in data analysis and co-wrote the manuscript)*
18. Martins de Carvalho L, Wiers CE, **Manza P**, Sun H, Schwandt M, Wang GJ, et al. Effect of alcohol use disorder on cellular aging. *Psychopharmacology (Berl).* 2019;236(11):3245-55. Epub 20190603. doi: 10.1007/s00213-019-05281-5. PMID: 31161452. *(Assisted in data analysis and co-wrote the manuscript)*
19. Tomasi DG, Wiers CE, Shokri-Kojori E, Zehra A, Ramirez V, Freeman C, et al. Association between reduced brain glucose metabolism and cortical thickness in alcoholics: evidence of neurotoxicity. *Int J Neuropsychopharmacol.* 2019;22(9):548-59. doi: 10.1093/ijnp/pyz036. PMID: 31369670. *(Assisted in data analysis and co-wrote the manuscript)*
20. Zhang Y, Ji G, Li G, Hu Y, Liu L, Jin Q, et al. Ghrelin reductions following bariatric surgery were associated with decreased resting state activity in the hippocampus. *Int J Obes (Lond).* 2019;43(4):842-51. Epub 20180618. doi: 10.1038/s41366-018-0126-x. PMID: 29915363. *(Assisted in data analysis and co-wrote the manuscript)*
21. Ding Y, Ji G, Li G, Zhang W, Hu Y, Liu L, et al. Altered interactions among resting-state networks in individuals with obesity. *Obesity (Silver Spring).* 2020;28(3):601-8. doi: 10.1002/oby.22731. PMID: 32090510. *(Assisted in data analysis and co-wrote the manuscript)*
22. Hu Y, Ji G, Li G, Zhang W, Wang J, Lv G, et al. Laparoscopic sleeve gastrectomy improves brain connectivity in obese patients. *J Neurol.* 2020;267(7):1931-40. Epub 20200313. doi: 10.1007/s00415-020-09780-w. PMID: 32170447. *(Assisted in data analysis and co-wrote the manuscript)*
23. Kann SJ, Chang C, **Manza P**, Leung HC. Akinetic rigid symptoms are associated with decline in a cortical motor network in Parkinson's disease. *NPJ Parkinsons Dis.* 2020;6:19. Epub 20200824. doi: 10.1038/s41531-020-00120-3. PMID: 32885038. *(Managed study, assisted in data analysis and co-wrote the manuscript)*
24. Kroll DS, Feldman DE, Biesecker CL, McPherson KL, **Manza P**, Joseph PV, et al. Neuroimaging of sex/gender differences in obesity: a review of structure, function, and neurotransmission. *Nutrients.* 2020;12(7):1942. Epub 20200630. doi: 10.3390/nu12071942. PMID: 32629783. *(Conceived of topic and co-wrote the manuscript)*
25. Kroll DS, Feldman DE, Wang SA, Zhang R, **Manza P**, Wiers CE, et al. The associations of comorbid substance use disorders and psychiatric conditions with adolescent brain structure and function: a review. *J Neurol Sci.* 2020;418:117099. Epub 20200819. doi: 10.1016/j.jns.2020.117099. PMID: 32866814. *(Conceived of topic and co-wrote the manuscript)*
26. **Manza P**, Shokri-Kojori E, Volkow ND. Reduced segregation between cognitive and emotional processes in cannabis dependence. *Cereb Cortex.* 2020;30(2):628-39. doi: 10.1093/cercor/bhz113. PMID: 31211388.
27. **Manza P**, Wiers CE, Shokri-Kojori E, Kroll D, Feldman D, Schwandt M, et al. Brain network segregation and glucose energy utilization: relevance for age-related differences in cognitive function. *Cereb Cortex.* 2020;30(11):5930-42. doi: 10.1093/cercor/bhaa167. PMID: 32564073.
28. **Manza P**, Yuan K, Shokri-Kojori E, Tomasi D, Volkow ND. Brain structural changes in cannabis dependence: association with MAGL. *Mol Psychiatry.* 2020;25(12):3256-66. Epub 20191106. doi: 10.1038/s41380-019-0577-z. PMID: 31695165.
29. Wang GJ, Shokri Kojori E, Yuan K, Wiers CE, **Manza P**, Wong CT, et al. Inhibition of food craving is a metabolically active process in the brain in obese men. *Int J Obes (Lond).*

2020;44(3):590-600. Epub 20191118. doi: 10.1038/s41366-019-0484-z. PMID: 31740725. *(Assisted in data analysis and co-wrote the manuscript)*

30. Wang Y, Ji G, Hu Y, Li G, Ding Y, Hu C, et al. Laparoscopic sleeve gastrectomy induces sustained changes in gray and white matter brain volumes and resting functional connectivity in obese patients. *Surg Obes Relat Dis.* 2020;16(1):1-9. Epub 20191011. doi: 10.1016/j.soard.2019.09.074. PMID: 31679986. *(Assisted in data analysis and co-wrote the manuscript)*
31. Zhao J, **Manza P**, Wiers C, Song H, Zhuang P, Gu J, et al. Age-related decreases in interhemispheric resting-state functional connectivity and their relationship with executive function. *Front Aging Neurosci.* 2020;12:20. Epub 20200226. doi: 10.3389/fnagi.2020.00020. PMID: 32161532. *(Assisted in data analysis and co-wrote the manuscript)*
32. Agarwal K, Demiral SB, **Manza P**, Volkow ND, Joseph PV. Relationship between BMI and alcohol consumption levels in decision making. *Int J Obes (Lond).* 2021;45(11):2455-63. Epub 20210806. doi: 10.1038/s41366-021-00919-x. PMID: 34363001. *(Assisted in data analysis and co-wrote the manuscript)*
33. Agarwal K, **Manza P**, Leggio L, Livinski AA, Volkow ND, Joseph PV. Sensory cue reactivity: sensitization in alcohol use disorder and obesity. *Neurosci Biobehav Rev.* 2021;124:326-57. Epub 20210212. doi: 10.1016/j.neubiorev.2021.02.014. PMID: 33587959.
34. Gowin JL, **Manza P**, Ramchandani VA, Volkow ND. Neuropsychosocial markers of binge drinking in young adults. *Mol Psychiatry.* 2021;26(9):4931-43. Epub 20200512. doi: 10.1038/s41380-020-0771-z. PMID: 32398720. *(Assisted in data-analysis and co-wrote the manuscript)*
35. Hu Y, Ji G, Li G, **Manza P**, Zhang W, Wang J, et al. Brain connectivity, and hormonal and behavioral correlates of sustained weight loss in obese patients after laparoscopic sleeve gastrectomy. *Cereb Cortex.* 2021;31(2):1284-95. doi: 10.1093/cercor/bhaa294. PMID: 33037819. *(Assisted in data analysis and co-wrote the manuscript)*
36. Li G, Hu Y, Zhang W, Ding Y, Wang Y, Wang J, et al. Resting activity of the hippocampus and amygdala in obese individuals predicts their response to food cues. *Addict Biol.* 2021;26(3):e12974. Epub 20201021. doi: 10.1111/adb.12974. PMID: 33084195. *(Assisted in data analysis and co-wrote the manuscript)*
37. McPherson KL, Tomasi DG, Wang GJ, **Manza P***, Volkow ND*. Cannabis affects cerebellar volume and sleep differently in men and women. *Front Psychiatry.* 2021;12:643193. Epub 20210513. doi: 10.3389/fpsyt.2021.643193. PMID: 34054601. (* = *co-senior authors*)
38. Tan Z, Li G, Zhang W, Wang J, Hu Y, Li H, et al. Obese individuals show disrupted dynamic functional connectivity between basal ganglia and salience networks. *Cereb Cortex.* 2021;31(12):5676-85. doi: 10.1093/cercor/bhab190. PMID: 34240115. *(Assisted in data analysis and co-wrote the manuscript)*
39. Tomasi D, Wiers CE, **Manza P**, Shokri-Kojori E, Michele-Vera Y, Zhang R, et al. Accelerated aging of the amygdala in alcohol use disorders: relevance to the dark side of addiction. *Cereb Cortex.* 2021;31(7):3254-65. doi: 10.1093/cercor/bhab006. PMID: 33629726. *(Assisted in data analysis and co-wrote the manuscript)*
40. Wiers CE, Vendruscolo LF, van der Veen JW, **Manza P**, Shokri-Kojori E, Kroll DS, et al. Ketogenic diet reduces alcohol withdrawal symptoms in humans and alcohol intake in rodents. *Sci Adv.* 2021;7(15):eabf6780. Epub 20210409. doi: 10.1126/sciadv.abf6780. PMID: 33837086. *(Co-managed study, assisted in data analysis and co-wrote the manuscript)*
41. Wiers CE, Zhao J, **Manza P**, Murani K, Ramirez V, Zehra A, et al. Conscious and unconscious brain responses to food and cocaine cues. *Brain Imaging Behav.* 2021;15(1):311-9. doi: 10.1007/s11682-020-00258-x. PMID: 32125616. *(Assisted in data analysis and co-wrote the manuscript)*

42. Zhang R, **Manza P**, Tomasi D, Kim SW, Shokri-Kojori E, Demiral SB, et al. Dopamine D1 and D2 receptors are distinctly associated with rest-activity rhythms and drug reward. *J Clin Invest.* 2021;131(18):e149722. doi: 10.1172/JCI149722. PMID: 34264865. *(Managed study, assisted in data analysis and co-wrote the manuscript)*
43. Zhang R, Tomasi D, **Manza P**, Shokri-Kojori E, Demiral SB, Feldman DE, et al. Sleep disturbances are associated with cortical and subcortical atrophy in alcohol use disorder. *Transl Psychiatry.* 2021;11(1):428. Epub 20210816. doi: 10.1038/s41398-021-01534-0. PMID: 34400604. *(Assisted in data analysis and co-wrote the manuscript)*
44. Zhang W, Ji G, **Manza P**, Li G, Hu Y, Wang J, et al. Connectome-based prediction of optimal weight loss six months after bariatric surgery. *Cereb Cortex.* 2021;31(5):2561-73. doi: 10.1093/cercor/bhaa374. PMID: 33350441. *(Assisted in data analysis and co-wrote the manuscript)*
45. Zhao J, **Manza P**, Gu J, Song H, Zhuang P, Shi F, et al. Contrasting dorsal caudate functional connectivity patterns between frontal and temporal cortex with BMI increase: link to cognitive flexibility. *Int J Obes (Lond).* 2021;45(12):2608-16. Epub 20210825. doi: 10.1038/s41366-021-00929-9. PMID: 34433905. *(Assisted in data analysis and co-wrote the manuscript)*
46. Agarwal K, **Manza P**, Chapman M, Nawal N, Biesecker E, McPherson K, et al. Inflammatory markers in substance use and mood disorders: a neuroimaging perspective. *Front Psychiatry.* 2022;13:863734. Epub 20220426. doi: 10.3389/fpsyt.2022.863734. PMID: 35558424. *(Assisted in data analysis and co-wrote the manuscript)*
47. Agarwal K, **Manza P**, Tejeda HA, Courville AB, Volkow ND, Joseph PV. Prenatal caffeine exposure is linked to elevated sugar intake and BMI, altered reward sensitivity, and aberrant insular thickness in adolescents: an ABCD investigation. *Nutrients.* 2022;14(21):4643. Epub 20221103. doi: 10.3390/nu14214643. PMID: 36364905. *(Assisted in data analysis and co-wrote the manuscript)*
48. Demiral SB, **Manza P**, Biesecker E, Wiers C, Shokri-Kojori E, McPherson K, et al. Striatal D1 and D2 receptor availability are selectively associated with eye-blink rates after methylphenidate treatment. *Commun Biol.* 2022;5(1):1015. Epub 20220926. doi: 10.1038/s42003-022-03979-5. PMID: 36163254. *(Managed study, assisted in data analysis and co-wrote the manuscript)*
49. Dennis E, **Manza P**, Volkow ND. Socioeconomic status, BMI, and brain development in children. *Transl Psychiatry.* 2022;12(1):33. Epub 20220124. doi: 10.1038/s41398-022-01779-3. PMID: 35075111. *(Conceived of topic, assisted in data-analysis, and co-wrote the manuscript)*
50. Giddens NT, Juneau P, **Manza P**, Wiers CE, Volkow ND. Disparities in sleep duration among American children: effects of race and ethnicity, income, age, and sex. *Proc Natl Acad Sci U S A.* 2022;119(30):e2120009119. Epub 20220718. doi: 10.1073/pnas.2120009119. PMID: 35858412. *(Conceived of topic, assisted in data-analysis, and co-wrote the manuscript)*
51. Kroll DS, McPherson KL, **Manza P**, Schwandt ML, Shen PH, Goldman D, et al. Elevated transferrin saturation in individuals with alcohol use disorder: association with HFE polymorphism and alcohol withdrawal severity. *Addict Biol.* 2022;27(2):e13144. doi: 10.1111/adb.13144. PMID: 35229939. *(Assisted in data analysis and co-wrote the manuscript)*
52. Li H, Hu Y, Li G, Zhang W, Wang J, Tan Z, et al. Long-term changes in insula-mesolimbic structural and functional connectivity in obese patients after laparoscopic sleeve gastrectomy. *Clin Auton Res.* 2022;32(4):237-47. Epub 20220721. doi: 10.1007/s10286-022-00877-y. PMID: 35864386. *(Assisted in data analysis and co-wrote the manuscript)*
53. **Manza P**, Kroll D, McPherson KL, Johnson A, Dennis E, Hu L, et al. Sex differences in weight gain during medication-based treatment for opioid use disorder: a meta-analysis and retrospective analysis of clinical trial data. *Drug Alcohol Depend.* 2022;238:109575. Epub 20220716. doi: 10.1016/j.drugalcdep.2022.109575. PMID: 35868182.
54. **Manza P**, Shokri-Kojori E, Demiral SB, Wiers CE, Zhang R, Giddens N, et al. Cortical D1 and D2 dopamine receptor availability modulate methylphenidate-induced changes in brain activity and

functional connectivity. *Commun Biol.* 2022;5(1):514. Epub 20220530. doi: 10.1038/s42003-022-03434-5. PMID: 35637272.

55. **Manza P**, Shokri-Kojori E, Wiers CE, Kroll D, Feldman D, McPherson K, et al. Sex differences in methylphenidate-induced dopamine increases in ventral striatum. *Mol Psychiatry.* 2022;27(2):939-46. Epub 20211027. doi: 10.1038/s41380-021-01294-9. PMID: 34707237.
56. Tan Z, Hu Y, Ji G, Li G, Ding Y, Zhang W, et al. Alterations in functional and structural connectivity of basal ganglia network in patients with obesity. *Brain Topogr.* 2022;35(4):453-63. Epub 20220702. doi: 10.1007/s10548-022-00906-z. PMID: 35780276. *(Assisted in data analysis and co-wrote the manuscript)*
57. Vines L, Sotelo D, Johnson A, Dennis E, **Manza P**, Volkow ND, et al. Ketamine use disorder: preclinical, clinical, and neuroimaging evidence to support proposed mechanisms of actions. *Intell Med.* 2022;2(2):61-8. Epub 20220307. doi: 10.1016/j.imed.2022.03.001. PMID: 35783539. *(Conceived of topic and co-wrote the manuscript)*
58. Wang J, Li G, Hu Y, Zhang W, Zhang L, Tan Z, et al. Habenular and mediodorsal thalamic connectivity predict persistent weight loss after laparoscopic sleeve gastrectomy. *Obesity (Silver Spring).* 2022;30(1):172-82. Epub 20211208. doi: 10.1002/oby.23325. PMID: 34889060. *(Assisted in data analysis and co-wrote the manuscript)*
59. Zhang R, **Manza P**, Volkow ND. Prenatal caffeine exposure: association with neurodevelopmental outcomes in 9- to 11-year-old children. *J Child Psychol Psychiatry.* 2022;63(5):563-78. Epub 20210727. doi: 10.1111/jcpp.13495. PMID: 34318489. *(Assisted in data analysis and co-wrote the manuscript)*
60. Zhang R, Tomasi D, Shokri-Kojori E, **Manza P**, Feldman DE, Kroll DS, et al. Effect of detoxification on N3 sleep correlates with brain functional but not structural changes in alcohol use disorder. *Drug Alcohol Depend.* 2022;238:109545. Epub 20220626. doi: 10.1016/j.drugalcdep.2022.109545. PMID: 35779511. *(Assisted in data analysis and co-wrote the manuscript)*
61. Zhang R, Wiers CE, **Manza P**, Tomasi D, Shokri-Kojori E, Kerich M, et al. Severity of alcohol use disorder influences sex differences in sleep, mood, and brain functional connectivity impairments. *Brain Commun.* 2022;4(4):fcac127. Epub 20220522. doi: 10.1093/braincomms/fcac127. PMID: 35794873. *(Assisted in data analysis and co-wrote the manuscript)*
62. Zhang W, Li G, **Manza P**, Hu Y, Wang J, Lv G, et al. Functional abnormality of the executive control network in individuals with obesity during delay discounting. *Cereb Cortex.* 2022;32(9):2013-21. doi: 10.1093/cercor/bhab333. PMID: 34649270. *(Assisted in data analysis and co-wrote the manuscript)*
63. Agarwal K, Luk JW, **Manza P**, McDuffie C, To L, Jaime-Lara RB, et al. Chemosensory alterations and impact on quality of life in persistent alcohol drinkers. *Alcohol Alcohol.* 2023;58(1):84-92. doi: 10.1093/alcalc/agac047. PMID: 36208183. *(Assisted in data analysis and co-wrote the manuscript)*
64. Agarwal K, **Manza P**, Tejeda HA, Courville AB, Volkow ND, Joseph PV. Risk assessment of maladaptive behaviors in adolescents: nutrition, screen time, prenatal exposure, childhood adversities - adolescent brain cognitive development study. *J Adolesc Health.* 2023. Epub 20231008. doi: 10.1016/j.jadohealth.2023.08.033. PMID: 37804305. *(Assisted in data analysis and co-wrote the manuscript)*
65. Cui J, Li G, Zhang M, Xu J, Qi H, Ji W, et al. Associations between body mass index, sleep-disordered breathing, brain structure, and behavior in healthy children. *Cereb Cortex.* 2023;33(18):10087-97. doi: 10.1093/cercor/bhad267. PMID: 37522299. *(Assisted in data analysis and co-wrote the manuscript)*
66. Etami Y, Lildharrie C, **Manza P**, Wang GJ, Volkow ND. Neuroimaging in adolescents: post-traumatic stress disorder and risk for substance use disorders. *Genes (Basel).* 2023;14(12):22113.

Epub 20231123. doi: 10.3390/genes14122113. PMID: 38136935. *(Conceived of topic and co-wrote the manuscript)*

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Non-peer reviewed journal articles

1. Fede SJ, Gowin JL, **Manza P**. An eye for an eye: neural correlates of the preference for punishment-based justice. *J Neurosci.* 2018;38(35):7559-61. doi: 10.1523/JNEUROSCI.1282-18.2018. PMID: 30158297.
2. **Manza P**, Yuan K, Shokri-Kojori E, Tomasi D, Volkow ND. Chronic cannabis users show deficits in gray and white matter structure. *Molecular Psychiatry.* 2020;25(12):3115-15. doi: https://doi.org/10.1038/s41380-020-00937-7

Book Chapters

1. Dennis E, Johnson A, Sotelo D, Vines L, **Manza P**, Wang GJ, et al. Neurocircuitry underlying the addictive dimension of Overeating and Obesity. In: Gearhardt AN, Brownell KD, Gold MS, Potenza MN, editors. Food and Addiction: A comprehensive handbook, 2nd edition. Oxford: Oxford University Press; 2024. p. 442-452.
2. **Manza P**, Volkow ND. Imaging the brain dopamine system in human addiction. In: Cragg S, Walton M, editors. The Handbook of Dopamine, 2nd edition. Oxford: Oxford University Press; 2024. (In press).

Major Invited Speeches

National

1. **Manza P**, How dopamine receptor binding affects human brain networks in real time: preliminary evidence from simultaneous PET-fMRI, Society of Biological Psychiatry, Chicago, IL, 2019
2. **Manza P**, Neural circuit selective for fast drug reward in humans, American College of Neuropsychopharmacology, Phoenix, AZ, 2022
3. **Manza P**, Brain dopaminergic signaling in opioid use disorder. Winter Conference on Brain Research, Snowbird, UT, 2023

International

4. **Manza P**, Simultaneous PET-fMRI imaging of fast drug reward. Brainbox Noninvasive Brain Stimulation Meeting, London, UK, 2022
5. **Manza P**, The brain dopamine system in opioid use disorder. International Drug Abuse Research Society, Rio De Janeiro, BR, 2022
6. **Manza P**, Elevated dopamine D1-to-D2 receptor ratio in opioid use disorder. International Drug Abuse Research Society, Rio De Janeiro, BR, 2024