

CURRICULUM VITAE OF CARLOS CARDENAS-INIGUEZ

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Current Position

2022- Postdoctoral NRSA NIEHS Fellow in Environmental Genomics, Department of Population and Public Health Sciences, Keck School of Medicine of the University of Southern California, Los Angeles, CA.

Previous Positions

2021-2022 Postdoctoral Scholar in the Herting Laboratory, Department of Population and Public Health Sciences, Keck School of Medicine of the University of Southern California, Los Angeles, CA.

2019-2021 Teaching Fellow in the Social Sciences and the College, Department of Psychology, The University of Chicago, Chicago, IL.

Education

2019 Ph.D., Psychology, The University of Chicago, Chicago, IL.
Dissertation: "A critical examination of the impact of social stratification and the environment on brain development and mental health."
Dissertation Committee: Marc Berman (Chair), Jean Decety, Howard Nusbaum, Monica Rosenberg (Reader)

2017 Higher Education Administration Certificate, Graham School of Continuing Liberal and Professional Studies, The University of Chicago, Chicago, IL.

2015 M.A., Psychology, The University of Chicago, Chicago, IL.
Thesis: "Social status and moral judgments in dyadic interactions"

2009 B.S., Brain and Cognitive Sciences, Massachusetts Institute of Technology, Cambridge, MA.
Minor: Psychology

Honors, Grants, and Awards

2012	University of Chicago	SBE Professionalization Program Grant (\$600)
2014	University of Chicago	Jane Morton and Henry C. Murphy Award, Student Leadership
2015	University of Chicago	UChicagoGRAD Innovation Grant (\$5000)
2016	Kavli Institute	Fellow, Summer Institute for Cognitive Neuroscience
2017	University of Chicago	UCANU Health Services Research Training Grant (T32; T32HS000084), The University of Chicago/Northwestern University
2017	SACNAS	Graduate Travel Award for the Society for the Advancement of Chicano/ Latinx and Native American Scientists (SACNAS) Annual Meeting
2017	University of Chicago	Bridge Builder Award, Student Leadership
2018	University of Chicago	Graduate Council, Graduate Student Leadership Recognition Award
2018	Kavli Institute	Fellow, Summer Institute for Cognitive Neuroscience
2019	University of Chicago	Campus Life & Leadership Award, Student Leadership
2019-2021	Society for Neuroscience	Neuroscience Scholars Program (R25 NS089462) Affiliate Scholar
2019-2021	UW ADVANCE	Broadening the Representation of Academic Investigators in Science (BRAINS) Affiliate Scholar (R25 NS094094)
2021-2023	Society for Neuroscience	Neuroscience Scholars Program Scholar (R25 NS089462)
2021-	University of Minnesota	Diversifying CNS Scholar (R25 NS117356)
2022-2023	University of Southern California	Southern California Environmental Health Sciences Center Postdoc Pilot Grant (\$10,000)
2022-	UW ADVANCE	Broadening the Representation of Academic Investigators in Science (BRAINS) Fellow (R25 NS094094)
2022	National Institute for Drug Abuse	ABCD Diversity Supplement Awarded, Parent grant U01DA041048 (returned due to T32)
2022	SACNAS/NIGMS	SACNAS Postdoc Leadership Institute Fellow (R25GM130515)
2022-2023	University of Vermont	ABCD - Scientific Training in Addiction Research Techniques (START) Scholar
2022-	University of Southern California	NIEHS Training Grant (T32; T32ES013678), Environmental Genomics, The University of California
2023	ABCD Study Consortium	ABCD Outstanding Investigator Award
2024	John Hopkins University	NSF Institute in Critical Quantitative, Computational, and Mixed Methodologies

Last Updated: November 11, 2024

(ICQCM) 2025 Scholar (NSF Award # 2321179)
 2024 Keck School of Medicine, KSOM 2024 Postdoctoral Award to Reduce Health Disparities
 University of Southern
 California

Specialized Training

2014 UC-Davis ERP Boot Camp
 2016 Kavli Institute Summer Institute for Cognitive Neuroscience, University of California, Santa Barbara
 2017 American Psychological Association Advanced Training Institute: Research Methods with Diverse Racial and Ethnic Groups, Michigan State University
 2017-2018 Spatial Analysis/GIS Concentration, The University of Chicago
 2018 Kavli Institute Summer Institute for Cognitive Neuroscience, Lake Tahoe
 2017-2019 UCANU Health Services Research Training Grant (T32)
 2019 ABCD Workshop, University of Oregon
 2020 College Teaching Certificate, Focus on Critical and Inclusive Pedagogy, Chicago Center for Teaching, UChicago
 2020 ABCD ReproNim Course on Reproducible Data Analyses– Enrolled Student
 2021 ABCD Longitudinal Modeling Workshop
 2023 CIMER Mentor Training
 2023 Completion of ABCD START Program

Grant Support – Awarded

SCEHSC Pilot Award (Cardenas-Iniguez and Schachner)

P30ES007048

The impact of structural racism, neighborhood effects, and environmental exposures on white and grey matter microstructure and cognition in the ABCD Study

Project using the nationwide longitudinal Adolescent Brain Cognitive Development (ABCD) Study to examine the relationship between social and built neighborhood factors, as well as structural factors of risk and resilience, and environmental exposures and their impact on gray and white matter microarchitecture and cognitive function from late-childhood to early- adolescence.

Role: co-PI

Total Direct Costs: \$10,000

MADRES Pilot Award (Aung and Cardenas-Iniguez)

P50MD015705

Air pollution, community-level social and neighborhood factors, and depression and anxiety in children of US born and immigrant parents

Project using the nationwide longitudinal Adolescent Brain Cognitive Development (ABCD) Study to examine the relationship between air pollution, as well as structural factors of risk and resilience, and depression anxiety from late-childhood to early-adolescence, with a specific focus on acculturation as a moderator in children of US-born and immigrant parents.

Role: co-PI

Total Direct Costs: \$50,000

NIDA Diversity Award (awarded but declined)

Parent grant: U01DA041048

PIs: Sowell/Herting

Impact of social, structural, and environmental determinants of health on air pollution on brain development and cognitive function.

Project using the nationwide longitudinal Adolescent Brain Cognitive Development (ABCD) Study to examine the relationship between air pollution, as well as structural factors of risk and resilience, and cognitive function from late-childhood to early-adolescence, with a specific focus on contextual factors that may relate to substance use initiation.

Total Direct Costs: \$143,396

Publications

- 1) Sukumaran, K., Bottenhorn, K., Schwartz, J., Gauderman, J., **Cardenas-Iniguez, C.**, McConnell, R., Hackman, D., Berhane, K., Ahmadi, H., Habre, R., Herting, M.M. (2024, in press) Associations between particulate matter components, their sources, and cognitive outcomes in U.S. children ages 9-10 years-old. *Environmental Health Perspectives*. <https://doi.org/10.1289/EHP1441>

- 2) Lehman, J., Balangoy, D., Mejia, A. P., **Cardenas-Iniguez, C.**, Marek, S., & Randolph, A. C. (2024). Negligence in biomedical research: An anti-racist approach for substance use researchers. *Frontiers in Public Health*, 12. <https://doi.org/10.3389/fpubh.2024.1401221>
- 3) Lopez, D. A., **Cardenas-Iniguez, C.**, Subramaniam, P., Adise, S., Bottenhorn, K. L., Badilla, P., Mukwekwerere, E., Tally, L., Ahanmisi, O., Bedichek, I. L., Matera, S. D., Perez-Tamayo, G. M., Sissons, N., Winters, O., Harkness, A., Nakiyingi, E., Encizo, J., Xiang, Z., Wilson, I. G., ... Huber, R. S. (2024). Transparency and reproducibility in the Adolescent Brain Cognitive Development (ABCD) study. *Developmental Cognitive Neuroscience*, 68, 101408. <https://doi.org/10.1016/j.dcn.2024.101408>
- 4) **Cardenas-Iniguez, C.**, & Gonzalez, M. R. (2024). Recommendations for the responsible use and communication of race and ethnicity in neuroimaging research. *Nature Neuroscience*, 1–14. <https://doi.org/10.1038/s41593-024-01608-4>
- 5) Bottenhorn, K. L., **Cardenas-Iniguez, C.**, Schachner, J. N., Rosario, M. A., Mills, K. L., Laird, A. R., & Herting, M. M. (2024). Adolescent Neurodevelopmental Variance Across Social Strata. *JAMA Network Open*, 7(5), e2410441. <https://doi.org/10.1001/jamanetworkopen.2024.10441>
- 6) Cotter, D. L., Morrel, J., Sukumaran, K., **Cardenas-Iniguez, C.**, Schwartz, J., & Herting, M. M. (2024). Prenatal and childhood air pollution exposure, cellular immune biomarkers, and brain connectivity in early adolescents. *Brain, Behavior, & Immunity - Health*, 38, 100799. <https://doi.org/10.1016/j.bbih.2024.100799>
- 7) Cotter, D. L., Ahmadi, H., **Cardenas-Iniguez, C.**, Bottenhorn, K. L., Gauderman, W. J., McConnell, R., Berhane, K., Schwartz, J., Hackman, D. A., Chen, J.-C., & Herting, M. M. (2024). Exposure to multiple ambient air pollutants changes white matter microstructure during early adolescence with sex-specific differences. *Communications Medicine*, 4(1), 1–12. <https://doi.org/10.1038/s43856-024-00576-x>
- 8) **Cardenas-Iniguez, C.**, Schachner, J. N., Ip, K. I., Schertz, K. E., Gonzalez, M. R., Abad, S., & Herting, M. M. (2024). Building Towards an Adolescent Neural Urbanome: Expanding Environmental Measures using Linked External Data (LED) in the ABCD Study. *Developmental Cognitive Neuroscience*, 101338. <https://doi.org/10.1016/j.dcn.2023.101338>
- 9) Abad, S., Badilla, P., Marshall, A. T., Smith, C., Tsui, B., **Cardenas-Iniguez, C.**, & Herting, M. M. (2024). Lifetime residential history collection and processing for environmental data linkages in the ABCD study. *Health & Place*, 87, 103238. <https://doi.org/10.1016/j.healthplace.2024.103238>
- 10) Badilla, P., Abad, S., Smith, C., Tsui, B., **Cardenas-Iniguez, C.**, & Herting, M. M. (2024). Lifetime residential data collection protocol for the Adolescent Brain Cognitive Development (ABCD) Study. *MethodsX*, 12, 102673. <https://doi.org/10.1016/j.mex.2024.102673>
- 11) Campbell, C. E., Cotter, D. L., Bottenhorn, K. L., Burnor, E., Ahmadi, H., Gauderman, W. J., **Cardenas-Iniguez, C.**, Hackman, D., McConnell, R., Berhane, K., Schwartz, J., Chen, J.-C., & Herting, M. M. (2024). Air pollution and age-dependent changes in emotional behavior across early adolescence in the U.S. *Environmental Research*, 240, 117390. <https://doi.org/10.1016/j.envres.2023.117390>
- 12) Harris, J. C., Liuzzi, M. T., **Cardenas-Iniguez, C.**, Larson, C. L., & Lisdahl, K. M. (2023). Gray space and default mode network-amygdala connectivity. *Frontiers in Human Neuroscience*, 17. <https://doi.org/10.3389/fnhum.2023.1167786>
- 13) Bottenhorn, K. L., **Cardenas-Iniguez, C.**, Mills, K. L., Laird, A. R., & Herting, M. M. (2023). Profiling intra- and inter-individual differences in brain development across early adolescence. *NeuroImage*, 279, 120287. <https://doi.org/10.1016/j.neuroimage.2023.120287>
- 14) Durham, E. L., Ghanem, K., Stier, A. J., **Cardenas-Iniguez, C.**, Reimann, G. E., Jeong, H. J., Dupont, R. M., Dong, X., Moore, T. M., Berman, M. G., Lahey, B. B., Bzdok, D., & Kaczkurkin, A. N. (2023). Multivariate analytical approaches for investigating brain-behavior relationships. *Frontiers in Neuroscience*, 17. <https://www.frontiersin.org/articles/10.3389/fnins.2023.1175690>
- 15) Stier, A. J., **Cardenas-Iniguez, C.**, Kardan, O., Moore, T. M., Meyer, F. A. C., Rosenberg, M. D., Kaczkurkin, A. N., Lahey, B. B., & Berman, M. G. (2023). A pattern of cognitive resource disruptions in childhood psychopathology. *Network Neuroscience*, 7(3), 1153–1180. https://doi.org/10.1162/netn_a_00322
- 16) Sukumaran, K., **Cardenas-Iniguez, C.**, Burnor, E., Bottenhorn, K. L., Hackman, D. A., McConnell, R., Berhane, K., Schwartz, J., Chen, J.-C., & Herting, M. M. (2023). Ambient fine particulate exposure and subcortical gray matter microarchitecture in 9- and 10-year-old children across the United States. *IScience*, 26(3), 106087. <https://doi.org/10.1016/j.isci.2023.106087>
- 17) Hill-Jarrett, T., Ng, R., **Cardenas-Iniguez, C.**, Akinsanya, J., Blanco, I., Borland, J., Brown, J., Clemons, T., Cushnie, A., Garcia, J., George, B., Hassinan, C., Hines, T., Landayan, D., McCorkle, T., Meckel, K., Metcalfe, M., Montoya, S., Rose, D., & Warren, D. (2023). A Developmental Approach to Diversifying Neuroscience Through Effective Mentorship Practices: Perspectives on Cross-Identity Mentorship and a Critical Call to Action. *Frontiers in Integrative Neuroscience*, 17. <https://www.frontiersin.org/articles/10.3389/fnint.2023.1052418>
- 18) Kardan, O., Stier, A. J., **Cardenas-Iniguez, C.**, Schertz, K. E., Pruijn, J. C., Deng, Y., Chamberlain, T., Meredith, W. J., Zhang, X., Bowman, J. E., Lakhtakia, T., Tindel, L., Avery, E. W., Lin, Q., Yoo, K., Chun, M. M., Berman, M. G., & Rosenberg, M. D. (2022). Differences in the functional brain architecture of sustained attention and working memory in youth and adults. *PLOS Biology*, 20(12), e3001938. <https://doi.org/10.1371/journal.pbio.3001938>
- 19) Webb EK*, **Cardenas-Iniguez C***, Douglas R.* Radically reframing studies on neurobiology and socioeconomic circumstances: A call for social justice-oriented neuroscience. (2022) *Front Integr Neurosci*. Sep 2;16:958545. doi: 10.3389/fnint.2022.958545. PMID: 36118113; PMCID: PMC9479322. * denotes co-first authorship
- 20) Marshall, A. T., Adise, S., **Cardenas-Iniguez, C.**, Hippolyte, O. K., Parchment, C. A., Villalobos, T. I., Wong, L. T., Cisneros, C. P., Kan, E. C., Palmer, C. E., Bodison, S. C., Herting, M. M., & Sowell, E. R. (2023). Family- and neighborhood-level environmental associations with physical health conditions in 9- and 10-year-olds. *Health Psychology*. Advance online publication. <https://doi.org/10.1037/hea0001254>

- 21) Reimann, G. E., Stier, A. J., Moore, T. M., Durham, E. L., Jeong, H. J., **Cardenas-Igiguez, C.**, Dupont, R. M., Pines, J. R., Berman, M. G., Lahey, B. B., & Kaczkurkin, A. N. (2022). Atypical Functional Network Properties and Associated Dimensions of Youth Psychopathology During Rest and Task Performance. *Biological Psychiatry Global Open Science*.
<https://doi.org/10.1016/j.bpsgos.2022.07.007>
- 22) **Cardenas-Igiguez, C.**, Burnor, E., & Herting, M. M. (2022). Neurotoxicants, the developing brain, and mental health. (2022). *Biological Psychiatry Global Open Science*. <https://doi.org/10.1016/j.bpsgos.2022.05.002>
- 23) Lahey, B. B., Tong, L., Pierce, B., Hedeker, D., Berman, M. G., **Cardenas-Igiguez, C.**, Moore, T. M., Applegate, B., Tiemeier, H., & Kaczkurkin, A. N. (2022). Associations of polygenic risk for attention-deficit/hyperactivity disorder with general and specific dimensions of childhood psychological problems and facets of impulsivity. *Journal of Psychiatric Research*, 152, 187–193.
<https://doi.org/10.1016/j.jpsychires.2022.06.019>
- 24) Jeong, H. J., Moore, T. M., Durham, E. L., Reimann, G. E., Dupont, R. M., **Cardenas-Igiguez, C.**, Berman, M. G., Lahey, B. B., & Kaczkurkin, A. N. (2022). General and Specific Factors of Environmental Stress and their Associations with Brain Structure and Dimensions of Psychopathology. *Biological Psychiatry: Global Open Science*, 0(0). <https://doi.org/10.1016/j.bpsgos.2022.04.004>
- 25) Saragosa-Harris, N., Chaku, N., MacSweeney, N., Williamson, V. G., Scheuplein, M., Feola, B., **Cardenas-Igiguez, C.**, Demir-Lira, E., McNeilly, E. A., Huffman, L. G., Whitmore, L., Michalska, K. J., Damme, K. S., Rakesh, D., & Mills, K. L. (2022). A practical guide for researchers and reviewers using the ABCD Study and other large longitudinal datasets. *Developmental Cognitive Neuroscience*, 101115. <https://doi.org/10.1016/j.dcn.2022.101115>
- 26) Zhuang, C., Meidenbauer, K. L., Kardan, O., Stier, A. J., Choe, K. W., **Cardenas-Igiguez, C.**, Huppert, T. J., & Berman, M. G. (2022). Scale invariance in fNIRS as a measurement of cognitive load. *Cortex*, 154, 62–76.
<https://doi.org/10.1016/j.cortex.2022.05.009>
- 27) Meredith, W. J., **Cardenas-Igiguez, C.**, Berman, M. G., & Rosenberg, M. D. (2022). Effects of the physical and social environment on youth cognitive performance. *Developmental Psychobiology*, 64(4), e22258. <https://doi.org/10.1002/dev.22258>
- 28) Cosgrove, K. T., McDermott, T. J., White, E. J., Mosconi, M. W., Thompson, W. K., Paulus, M. P., **Cardenas-Igiguez, C.**, & Aupperle, R. L. (2022). Limits to the generalizability of resting-state functional magnetic resonance imaging studies of youth: An examination of ABCD Study® baseline data. *Brain Imaging and Behavior*. <https://doi.org/10.1007/s11682-022-00665-2>
- 29) Fan, C. C., Marshall, A., Smolker, H., Gonzalez, M. R., Tapert, S. F., Barch, D. M., Sowell, E., Dowling, G. J., **Cardenas-Igiguez, C.**, Ross, J., Thompson, W. K., & Herting, M. M. (2021). Adolescent Brain Cognitive Development (ABCD) study Linked External Data (LED): Protocol and practices for geocoding and assignment of environmental data. *Developmental Cognitive Neuroscience*, 52, 101030. <https://doi.org/10.1016/j.dcn.2021.101030>
- 30) Beach, S. D., Lim, S.-J., **Cardenas-Igiguez, C.**, Eddy, M. D., Gabrieli, J. D. E., & Perrachione, T. K. (2022). Electrophysiological correlates of perceptual prediction error are attenuated in dyslexia. *Neuropsychologia*, 165, 108091.
<https://doi.org/10.1016/j.neuropsychologia.2021.108091>
- 31) Stier, A. J., Schertz, K. E., Rim, N. W., **Cardenas-Igiguez, C.**, Lahey, B. B., Bettencourt, L. M., & Berman, M. G. (2021). Evidence and theory for lower rates of depression in larger US urban areas. *Proceedings of the National Academy of Sciences*, 118(31). e2022472118; doi: 10.1073/pnas.2022472118.
- 32) Jeong, H. J., Durham, E. L., Moore, T. M., Dupont, R. M., McDowell, M., **Cardenas-Igiguez, C.**, Micciche, E. T., Berman, M. G., Lahey, B. B., & Kaczkurkin, A. N. (2021). The association between latent trauma and brain structure in children. *Translational Psychiatry*, 11(1), 1–9. <https://doi.org/10.1038/s41398-021-01357-z>
- 33) **Cardenas-Igiguez, C.**, Moore, T.M., Kaczkurkin, A.N., Satterthwaite, T.D., Fair, D.A., White, T., Blok, E., Applegate, B., Thompson, L.M., Rosenberg, M.D., Hedeker, D., Berman, M.G., Lahey, B.B. (2020). Direct and indirect associations of widespread individual differences in brain white matter microstructure with executive functioning and general and specific dimensions of psychopathology in children. *Biological Psychiatry: Cognitive Neuroscience and NeuroImaging*. <https://doi.org/10.1016/j.bpsc.2020.11.007>
- 34) Meidenbauer, K. L., Choe, K. W., **Cardenas-Igiguez, C.**, Huppert, T. J., & Berman, M. G. (2021). Load-dependent relationships between frontal fNIRS activity and performance: A data-driven PLS approach. *NeuroImage*, 230, 117795.
<https://doi.org/10.1016/j.neuroimage.2021.117795>
- 35) Schertz, K.E., Saxon, J., **Cardenas-Igiguez, C.**, Bettencourt, L.M.A., Ding, Y., Hoffman, H., Berman, M.G. Neighborhood street activity and greenspace usage uniquely contribute to predicting crime. *npj Urban Sustain* 1, 19 (2021). <https://doi.org/10.1038/s42949-020-00005-7>
- 36) Durham, E., Jeong, H.J., Moore, T., Dupont, R., **Cardenas-Igiguez, C.**, Cui, Z., Stone, F., Berman, M.G., Lahey, B.B., Kaczkurkin, A. (2020). Association of gray matter volumes with general specific dimensions of psychopathology in children. *Neuropsychopharmacology*. In Press.
- 37) Moore, T. M., Kaczkurkin, A. N., Durham, E. L., Jeong, H. J., McDowell, M. G., Dupont, R. M., Applegate, B., Tackett, J. L., **Cardenas-Igiguez, C.**, Kardan, O., Akcelik, G. N., Stier, A. J., Rosenberg, M. D., Hedeker, D., Berman, M. G., & Lahey, B. B. (2020). Criterion validity and relationships between alternative hierarchical dimensional models of general and specific psychopathology. *Journal of Abnormal Psychology*, 129(7), 677–688. <https://doi.org/10.1037/abn0000601>
- 38) Ashburn, S., Abugaber, D., Antony, J., Bennion, K., Bridwell, D., **Cardenas-Igiguez, C.**, Doss, M., Fernández, L., Huijsmans, I., Krisst, L., Lapate, R., Layher, E., Leong, J., Li, Y., Marquez, F., Munoz-Rubke, F., Musz, L., Patterson, T., Powers, J., Proklova, D., Rapuano, K., Robinson, S., Ross, J., Samaha, J., Sazma, M., Stewart, A., Stickel, A., Stolk, A., Vilgis, V., Zirnstein, M. (In press). Towards a socially responsible, transparent, and reproducible cognitive neuroscience. In D. Poeppel, M. Gazzaniga, & R. Mangun, *The Cognitive Neurosciences VI*. Cambridge, MA: MIT Press.
- 39) Gyurovski, I., Kubota, J., **Cardenas-Igiguez, C.**, & Cloutier, J. (2017). Social status level and dimension interactively influence person evaluations indexed by P300s. *Social Neuroscience*, 1-13.

- 40) Cloutier, J., **Cardenas-Igiguez, C.**, Gyurovski, I., Barakzai, A., & Li, T. (2016). Neuroimaging investigations of social status and social hierarchies. In J. Cloutier & J. R. Absher (eds.), *Neuroimaging Personality, Social Cognition and Character: Traits and Mental States in the Brain*. (pp. 187-205). Elsevier.
- 41) Cacioppo, S., Bangee, M., Balogh, S., **Cardenas-Igiguez, C.**, Qualter, P., & Cacioppo, J. T. (2015). Loneliness and implicit attention to social threat: A high-performance electrical neuroimaging study. *Cognitive Neuroscience*, 7, 1-22. DOI: 10.1080/17588928.2015.1070136.
- 42) Li, T., **Cardenas-Igiguez, C.**, Correll, J., & Cloutier, J. (2015). The impact of motivation on race-based impression formation. *NeuroImage*. 124, 1-7.
- 43) Thompson, T.W., Waskom, M.L., Garel, K.A., **Cardenas-Igiguez, C.**, Reynolds, G.O., Winter, R., Chang, P., Pollard, K., Lala, N., Alvarez, G.A., Gabrieli, J.D.E. (2013). Failure of Working Memory Training to Enhance Cognition or Intelligence. *Plos ONE*, 8, e63614.
- 44) Wu, S., Bachrach, A., **Cardenas, C.**, & Schuler, W. (2010). Complexity metrics in an incremental right-corner parser. Proceedings of the 48th Annual Meeting of the Association for Computational Linguistics (pp. 1189-1198). Association for Computational Linguistics.
- 45) Roark, B., Bachrach, A., **Cardenas, C.**, & Pallier, C. (2009). Deriving lexical and syntactic expectation-based measures for psycholinguistic modeling via incremental top-down parsing. Proceedings of the 2009 Conference on Empirical Methods in Natural Language Processing: Volume 1 (pp. 324-333). Association for Computational Linguistics.

Submitted manuscripts and preprints

- 1) **Cardenas-Igiguez, C.**, Borland, J., Brown, J. S., Garcia, J. P., Hassinan, C. W., McCorkle, T. A., Meckel, K., Rose, D., Warren, D., Akinsanya, J., Blanco, I., Clemons, T. A., Cushnie, A., George, B., Hines, T., Landayan, D., Metcalfe, M., Montoya, S. A., Ng, R., & Hill-Jarrett, T. (2024, submitted). Diversifying the Community of Neuroscience: Lessons Learned from a Cross-Stage Longitudinal Program of Diverse Neuroscientists. OSF. <https://doi.org/10.31219/osf.io/mf5za>
- 2) Gonzalez, M. R., **Cardenas-Igiguez, C.**, Linares, D., Wonnun, S. J. W., Bagot, K., White, E., Cuan, A., DiMatteo, S., Akiel, Y., Lindsley, P., Harris, J., Perez-Amparan, E., Powell, T., Dowling, G., Alkire, D., Thompson, W. K., & Murray, T. (2024, under review). Responsible Research in Health Disparities Using the Adolescent Brain Cognitive Development (ABCD) Study. OSF. <https://doi.org/10.31234/osf.io/ar2t3>
- 3) Amezcua, L., **Cardenas-Igiguez, C.**, Orlando, C., Nahar, I., Delgado, S.R., Manrique, C.P., McCauley, J.L., ARHMS Investigators, Islam, T., (2024, under review) Neighborhood level Social Determinants of Health in Hispanic People with Multiple Sclerosis.
- 4) Reimann, G.E., Lahey, B.B., Jeong, H.J., Durham, E.L., Archer, C., Cardenas-Igiguez, C., Berman, M.G., Moore, T.M., Applegate, B., Hawes, S.W., Gonzalez, R., Kaczurkin, A.N. (2024, under review). Longitudinal Association of Youth Behavior with Dimensions of Psychopathology.
- 5) Li, S., Goodrich, J.A., Costello, E., Walker, D., **Cardenas-Igiguez, C.**, Chen, J.C., Alderete, T.L., Valvi, D., Rock, S., Eckel, S.P., McConnell, R., Gilliland F.D., Wilson, J., MacDonald, B., Conti, D.V., Smith, A., McCurry, D., Childress, A.E., Golden, L., Aung, M., Chatzi, L. (2024, submitted). Examining Disparities in PFAS Plasma Concentrations: Impact of Drinking Water Contamination, Food Access, Proximity to Industrial Facilities and Superfund Sites.
- 6) Marek, S., Donohue, M.R., Karcher, N., Hoyniak, C., Chauvin, R.J., Meyer, A.C., Miller, J., Van, A.N., Wang, A., Baden, N.J., Suljic, V., Scheidter, K.M., Monk, J., Whiting, F.I., Ramirez-Perez, N.J., Krimmel, S.R., Metoki, A., Paul, S.E., Gorelik, A.J., Schwarzlose, R.F., **Cardenas-Igiguez, C.**, Herting, M.M., Petersen, S.E., Luby, J., Randolph, A.C., Shanahan, M., Matthews, M., Hardeman, R.R., Turkheimer, E., Kay, B.P., Gordon, E.M., Laumann, T.O., Barch, D.M., Fair, D.A., Tervo-Clemmens, B., Dosenbach, N.U.F. (2024, under review). Childhood socioeconomic opportunity is strongly reflected in the brain.
- 7) Harris, MA, Wilson, IG, **Cardenas-Igiguez, C.**, Watts, A.L., Lisdahl, K.M. (2024, submitted) Childhood Opportunity Index 2.0: Factor Structure Within the Adolescent Brain Cognitive Development Study
- 8) Morrel, J., Overholtzer, L. N., Sukumaran, K., Cotter, D. L., **Cardenas-Igiguez, C.**, Tyszka, J. M., Schwartz, J., Hackman, D. A., Chen, J.-C., & Herting, M. (2024). Outdoor Air Pollution Relates to Amygdala Subregion Volume and Apportionment in Early Adolescents (p. 2024.10.14.617429). bioRxiv. <https://doi.org/10.1101/2024.10.14.617429>

In Preparation

- 1) **Cardenas-Igiguez, C.**, de Jesus, A., Schachner, J.N., Abad, S., Ahmadi, H., Schwartz, J., Sukumaran, K., Hackman, D., Herting, M.M. (2023, in prep) Within- and between- study site variations in ambient air pollution exposure at ages 9-10 years in the Adolescent Brain Cognitive Development (ABCD) Study.

Selected Posters and Presentations

Talks and Presentations

- 1) **Cardenas-Igiguez, C.** (2024, May). "We controlled for race and ethnicity...": Recommendations and considerations on the responsible use of race and ethnicity in neuroimaging research. Presented at the DevSci Colloquium in the Department of Psychology at Northwestern University.
- Cardenas-Igiguez, C.** (2024, April). *Everything you ever wanted to know about Linked External Data (LED) in the ABCD Study*. Presented at in the Department of Psychology at Arizona State University. Tempe, AZ.

- 2) **Cardenas-Iguez, C.** (2024, April). *Building Towards an Adolescent Neural Urbanome: Expanding Environmental Measures using Linked External Data (LED) in the ABCD Study*. Part of the ABCD Study symposium conducted at the Society for Research on Adolescents, Chicago, IL.
- 3) **Cardenas-Iguez, C.** (2024, March). *"We controlled for race and ethnicity...": Challenging conventions of handling race, ethnicity, and social class in psychology and neuroscience*. Presented at the 2024 Cognitive Colloquium in the Department of Psychology at Penn State University. University Park, PA. Slides available here: <https://zenodo.org/records/10851024>
- 4) **Cardenas-Iguez, C.** (2024, February). *Building Towards an Adolescent Neural Urbanome: Expanding Environmental Measures using Linked External Data (LED) in the ABCD Study*. Presented to the Developmental Cognition and Neuroimaging Lab at the University of Minnesota. Minneapolis, MN.
- 5) **Cardenas-Iguez, C.** (2023, November). *Social stratification: Socioeconomic status, race, and Ethnicity*. Presented as a guest lecture for PSYCH 466 (Environmental Psychology) at Washington State University in Pullman, Washington. Slides available at: <https://zenodo.org/records/10076419>
- 6) **Cardenas-Iguez, C.** (2023, November). *Environmental contexts and their relationship with neuroscience and psychology*. Presented in the Molecules to Behavior Seminar in the Department of Psychology at the University of Texas, El Paso. Slides available here: <https://zenodo.org/records/10076734>
- 7) **Cardenas-Iguez, C.** (2023, October). *Neuroscience and psychology in context: Social and structural determinants of psychological health and behavior*. Presented at the Department Colloquium of the Department of Psychology at the University of Oregon in Eugene, Oregon. Slides available here: <https://zenodo.org/records/8393704>
- 8) **Cardenas-Iguez, C.** (2023, September). *"We controlled for race and ethnicity...": Challenging conventions of handling race, ethnicity, and social class in psychology and neuroscience*. Presented at the 2023 Big Data Workshop in Neuroscience organized by the Advanced Computational Neuroscience Network (ACNN). Columbus, OH. Slides available here: <https://zenodo.org/records/8343639>
- 9) **Cardenas-Iguez, C.** (2023, September). *Lessons learned in ABCD JEDI Working Group 3: Responsible use of data*. Presented at the Flux Society Annual Meeting, Santa Rosa, CA.
- 10) **Cardenas-Iguez, C.** (2023, June). *"We controlled for race and ethnicity...": Challenging conventions of handling race, ethnicity, and social class in psychology and neuroscience*. Presented at the Webinars by Early Career Investigators in Addiction Neuroscience (WECAN), hosted by NIDA/NIAAA. Bethesda, MD.
- 11) **Cardenas-Iguez, C.** (2023, March). *"We controlled for race and ethnicity...": Challenging conventions of handling race, ethnicity, and social class in psychology and neuroscience*. Presented at the Developmental Psychology Forum of the UCR Department of Psychology. Riverside, CA.
- 12) **Cardenas-Iguez, C.** (2022, November). *Impact of Structural, Social, and Environmental Determinants of Health on Neurite Density and Cognitive Performance*. Session on early-career researcher projects using the ABCD Study at the ABCD Study Annual Meeting, San Diego, CA.
- 13) **Cardenas-Iguez, C.** (2022, October). *Impact of Structural, Social, and Environmental Determinants of Health on Neurite Density and Cognitive Performance*. Closing ceremony for the ABCD-START program. Tampa, FL.
- 14) **Cardenas-Iguez, C.** (2022, October). *"We controlled for race and ethnicity...": Challenging conventions of handling race, ethnicity, and social class in psychology and neuroscience*. Presented at the Developmental Psychology Forum of the UCLA Department of Psychology. Los Angeles, CA.
- 15) **Cardenas-Iguez, C.** (2022, May). *The impact of neighborhood disadvantage on neurocognition and brain structure in early childhood and adolescence*. Presented within session "Leveraging large neuroimaging studies to socioeconomic Impacts on neurocognitive impact" at 2022 American Psychiatric Association Annual Meeting, New Orleans, LA.
- 16) **Cardenas-Iguez, C.** (2022, May). *Bioethics, justice, and use of secondary datasets*. Data use presentation as part of the Neurocognitive Mechanisms of Structural Racism Virtual Meeting, National Institute on Drug Abuse.
- 17) **Cardenas-Iguez, C.** (2022, February). *Measuring the environment: Linked External Data (LED) in the ABCD Study*. Part of the ABCD Study symposium conducted at the Society for Research on Adolescents, New Orleans, LA
- 18) **Cardenas-Iguez, C.** (2021, November). *A Multivariate approach to structural and social determinants of health in the ABCD Study: Environment, brain, and cognitive function*. (November 2021). Session on neuroimaging research projects in ABCD conducted at the ABCD Study Annual Meeting, San Diego, CA.
- 19) **Cardenas-Iguez, C.** (2021, November). *Justice, Equity, Diversity, and Inclusion (JEDI) resources and reflections, responsible use of the ABCD Study data*. Session on resources available to ABCD Study researchers conducted at the ABCD Study Annual Meeting, San Diego, CA.

Selected Posters

- 1) **Cardenas-Iguez, C.,** Herting, M.M. (January, 2024). Exploring multivariate associations in the Adolescent Neural Urbanome across race and ethnicity in the ABCD Study. Poster presented at the USA Exposome Symposium, Nashville, TN.
- 2) **Cardenas-Iguez, C.,** Herting, M.M. (November 2022). A Multivariate Approach to Structural and Social Determinants of Health in the ABCD Study: Environment, Brain Structure, and Cognitive Function. Poster presented at the Society for Neuroscience Annual Meeting, San Diego, CA.

- 3) **Cardenas-Iniguez, C.**, Herting, M.M. (February 2022). A Multivariate Approach to Structural and Social Determinants of Health in the ABCD Study: Environment, Brain Structure, and Cognitive Function. Poster presented at the NINDS OPEN Connections Poster Symposium: Advancing Scientific Excellence Through Diversity.
- 4) **Cardenas-Iniguez, C.**, Berman, M.G., ABCD Study (October 2019). Socioeconomic Status and Minority Status Effects on Brain Structure and Cognitive Function: A Multivariate Analysis of the ABCD Dataset. Poster presented at the Society for Neuroscience Annual Meeting, Chicago, IL.
- 5) **Cardenas-Iniguez, C.**, & Berman, M.G. (June 2019). The role of local community perceptions, neighborhood greenspace, and psychosocial factors health-related behaviors and mental health outcomes. Poster presented at the AHRQ NRSA Annual Meeting as part of the AcademyHealth Annual Meeting, Washington DC.
- 6) Gyurovski, I., **Cardenas-Iniguez, C.**, Cloutier, J. (January 2016) An ERP Investigation of Status-Based Evaluations. Poster presented at the Society for Personality and Social Psychology Annual Meeting, San Diego, CA.
- 7) Beach, S.D., **Cardenas-Iniguez, C.**, Eddy, M.E., Gabrieli, J.D.E., Perrachione, T.K. (April, 2014) Expectation-based neural adaptation deficits in dyslexia. Poster presented at The Cognitive Neuroscience Society Annual Meeting 2014, Boston, MA.
- 8) **Cardenas-Iniguez, C.**, Li, T., Correll, J., Cloutier, J. (November, 2013) The impact of implicit prejudice on the neural substrates of race perception. Poster presented at the Society for Social Neuroscience Pre-SfN Meeting, San Diego, CA.
- 9) Bachrach, A., Brown, M., **Cardenas, C.**, Felsovalyi, O., Marantz, A., Gabrieli, J.D.E. (April, 2008) Imaging of language processing and syntactic complexity in a naturalistic context. Poster presented at the Annual Meeting for the Cognitive Neuroscience Society.

Teaching Experience

Lecturer, The University of Chicago

Winter 2019, 2020, 2021	Mind II: Mechanisms of Mind
Fall 2019, 2020	Mind I: Construction of Experience
Winter 2020, 2021	Psychology of Race, Ethnicity, and Social Class: Perspectives and Impact
Spring 2021	Mind III: The Mind in Context

Teaching Assistant, The University of Chicago

Fall 2014	Sensation & Perception	Professor Steve Shevell
Fall 2014	The Empathic Brain	Professor Jean Decety
Spring 2015	Cognitive Psychology	Professor Marc Berman
Fall 2015	Psychology and Neurobiology of Stress	Professor Greg Norman
Winter 2016	Social Psychology	Professor William Goldstein
Spring 2015	Cognitive Psychology	Professor Marc Berman
Fall 2016	Mind: Dimensions of Individual Behavior	Professor Edward Awh
Winter 2017	Mind II: Mechanisms of Mind	Professor Sarah London

Special Courses

Fall 2023	Diversity Science Workshop	Department of Psychology, University of Oregon
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Research Experience

Postdoctoral Scholar in the Herting Neuroimaging Lab

Department of Preventative Medicine, Keck School of Medicine, University of Southern California

April 2021 – Present, PI: Megan Herting

Research Projects: Investigating the role of structural factors related to environmental factors (e.g., neighborhood conditions, environmental exposures, systemic racism) across minoritized groups, and how this, in turn, impacts brain development, socioemotional development, cognitive performance, and psychopathology, using multivariate statistical methods (i.e., canonical correlations analysis, partial least squares, structural equation modeling). Co-Chair of the ABCD Linking External Data – Environment and Policy (LED-E&P), and Justice, Equity, Diversity and Inclusion (JEDI) Working Groups.

Postdoctoral Researcher in the Environmental Neuroscience Lab

Department of Psychology, University of Chicago

September 2019 – March 2021

Collaborators: Marc Berman (PI), Monica Rosenberg, Benjamin Lahey, Antonia Kaczurkin

Research Projects: Investigating the role of environmental factors (e.g., socioeconomic status and neighborhood conditions) on cortical morphometry, white matter diffusivity, and cognitive function during development using multivariate statistical approaches including Partial Least Squares, Canonical Correlations Analysis, Structural Equation Modeling, and Directed Acyclic Graphs.

Graduate Researcher in the Environmental Neuroscience Lab**Department of Psychology, University of Chicago**

August 2015 – August 2019

Supervisor: Marc Berman (PI)

Research Projects: Investigated the role of environmental factors (e.g., socioeconomic status and neighborhood conditions) on cortical morphometry and cognitive function during development. Explored neighborhood social factors and greenspace exposure on health care utilization and health-related behaviors. Studied interaction of childhood socioeconomic conditions and present attitudes of social class on empathic processing and moral reasoning.

Graduate Researcher in the Cloutier Lab and High-Performance Electrical Neuroimaging Laboratory,**Department of Psychology, University of Chicago**

October 2012 – June 2015

Supervisors: Jasmin Cloutier, Jennifer Kubota, John Cacioppo, Jean Decety

Research Projects: Investigated the role of context effects (e.g., social status and race cues) and empathy on the perception of intentional harm. Examined neural substrates underlying categorization of objects using social status cues.

Developed and implemented behavioral tasks, scripts, and analysis for use in behavioral, fMRI, and ERP studies.

Research Assistant in the Gabrieli Lab**McGovern Institute for Brain Research, Massachusetts Institute of Technology**

September 2007 – August 2012

Supervisors: John Gabrieli (PI), Marianna Eddy, Julie Yoo, Tyler Perrachione, Elizabeth Norton, Joanna Christodolou, Todd Thompson

Research Projects: Investigated the impact of working memory training on fluid intelligence. Explored predictive role of EEG mismatch negativity (MMN) in young children. Developed and implemented behavioral tasks, scripts, and analysis for use in behavioral, fMRI, MEG, and ERP studies. Created training materials for use by researchers in the department, including scripts for preprocessing and statistical analysis.

Additional Justice, Equity, Diversity, and Inclusion (JEDI) Work Experience**Higher Education Intern, Development and Diversity at UChicagoGRAD in the Office of the Provost, University of Chicago**

October 2016 – August 2019

Supervisor: Dana Bozeman, Director, GRAD Diversity and Inclusion (September 2018-August 2019); Celina Chatman Nelson, Director, GRAD Development and Diversity (October 2016-July 2018)

Responsibilities: Developed and implemented programs and projects dedicated to support of historically underrepresented minority graduate students. Created campus-wide listservs for communication of diversity initiatives for graduate students of color. Coordinated 20+ focus groups of diverse graduate students and communicated results to university administrators and faculty committee. Founded and co-coordinated the GRAD Diversity Advisory Board with other Higher Education Interns.

Graduate Assistant, Faculty Diversity Initiatives in the Office of the Provost, University of Chicago

June 2014 – September 2016

Supervisor: Tamara Johnson, Director of Faculty Diversity Initiatives

Responsibilities: Researched best practices at peer institutions for recruitment and retention of diverse faculty. Collected and analyzed institutional faculty recruitment and retention data. Assisted in the writing of the Promising Practices Handbook of Diverse Faculty Recruitment.

Justice, Equity, Diversity, and Inclusion (JEDI) Institutional Service**The University of Chicago**

Inaugural Chair of the Diversity and Inclusion Committee, Psychology Graduate Student Organization, April 2013 – August 2019

Inaugural Chair of the UChicagoGRAD Diversity Advisory Board, October 2016 – August 2019

Member of the Diversity Advisory Council to the President and Provost, February 2015 – January 2017

Member of the Dean's Advisory Council in the Social Sciences Division, Spring 2016 – August 2019

Member of the Office of Multicultural Student Affairs Student Advisory Board, Fall 2014 – Spring 2015

Member of the Diversity Task Force, Office of the Provost, Fall 2013 – Spring 2016

Department of Psychology, The University of Chicago

Consultant to Faculty and Student Diversity and Inclusion Committee, AY 2019-2020

Consultant to Faculty Mentoring Committee, AY 2019-2020

Flux Society

Member of the Flux Society Diversity, Inclusion, and Belonging Committee, Affinity Groups Coordinator, 2021-

Founder of the Flux Society LGBTQIA Affinity Group

Flux Strategic Plan Development Task Force-- 2024

ABCD Study Consortium

Member of the JEDI Taskforce (2021-2023)

Member of the JEDI Advisory Council

Member of the JEDI Taskforce Working Group on Equitable and Inclusive Methods

Member of the JEDI Taskforce Working Group on Responsible Use and Communication of ABCD Study Data

Member of the Community Engagement and Dissemination Working Group

Member of the Sociodemographics Working Group

Mentoring Experience

EH Matters Program, Keck School of Medicine, University of Southern California

Tiffany Rodriguez (2024-)

The Leadership Alliance's Summer Research Early Identification Program (SR-EIP), The University of Chicago

Caio Rodrigues (Summer 2013)

Gaby Akcelik (Summer 2017)

Graduate Student Mentorship Initiative (GSMI), Cientifico Latino

Myra Larson (AY2019-2020)

Alexis Ceja (AY2020-2021)

Marcus Trenfield (AY2021-2022)

Next-Gen Psych Scholars Program (NPSP), University of Minnesota

Nadia Floyd (AY2020-2021)

Charles Melton (AY2021-2022)

Josh Alvarado (AY2021-2022)

First-generation, Lower-Income, Immigrant (FLI) Champions Mentoring Program

Adiah Coffey (AY 2020-2021)

MA Program in the Social Sciences, The University of Chicago

Ross Robinson (AY2015-2016)

Jaime Young (AY2016-2017)

Professional Organizations

AcademyHealth

American Psychological Association (APA)

Association for Psychological Science (APS)

Cognitive Neuroscience Society (CNS)

Flux Society

Interdisciplinary Association for Population Health Science (IAPHS)

Social and Affective Neuroscience Society (SANS)

Society for Neuroscience (SfN)

Society for Personality and Social Psychology (SPSP)

Society for Social Neuroscience (S4SN)

Society for the Advancement of Chicano/Hispanic and Native Americans in Science (SACNAS)

Society for the Psychological Study of Social Issues (SPSSI)

Society for Research in Child Development (SRCD)