
SIMON N. VANDEKAR

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Office Address:

Department of Biostatistics
Vanderbilt University Medical Center
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Education:

University of Pennsylvania, Philadelphia, PA *2014-2018*
Ph.D. in Biostatistics
Dissertation advisor: Russell T. Shinohara

Pennsylvania State University, State College, PA *2005-2009*
B.S. in Psychology-Neuroscience

Academic Appointments:

Assistant Professor of Biostatistics *2018-present*
Director of Graduate Recruitment *2022-present*
Department of Biostatistics
Vanderbilt University, School of Medicine

Professional Activities:

Intramural:

Chair, 20th Anniversary Celebration Committee *2023*
Member, Comprehensive Exam Committee *2021-present*
Member, Department of Biostatistics Search Committee *2021-present*
Member, Department of Biostatistics Graduate Admissions Committee *2022-present*
Member, Summer Internship for Underrepresented Undergraduates *2022-present*

Extramural:

Program Chair Elect - Section on Statistics in Imaging Section, ASA *2020-2021*
Program Chair - Section on Statistics in Imaging Section, ASA *2021-2022*
Program Chair - Statistical Methods in Imaging Conference 2022 *2021-2022*
President - Middle TN Chapter, ASA *2022-2023*
Committee Member - Statistical Methods in Imaging Conference 2023 *2022-2023*

Editorial Experience:

Reviewer:

Bioinformatics, Biometrics, Biostatistics, Human Brain Mapping, Journal of the American Medical Association Psychiatry, Journal of the American Medical Association Otolaryngology, Journal of the American Statistical Association, IEEE Journal of Biomedical Health Informatics, Journal of the Royal Statistical Society Series B, The Lancet Psychiatry, Neuroimage, Neuron, PLOS ONE, Psychoneuroendocrinology, IEEE Transactions on Medical Imaging PLOS One, Statistical Methods in Medical Research, WIREs Computational Statistics

Teaching Experience:

Didactic:

Teaching Assistant, Categorical and Survival Analysis	<i>Spring 2016</i>
Teaching Assistant, Linear Models and GLMs	<i>Spring 2017</i>
Teaching Assistant, Categorical and Survival	<i>Spring 2018</i>
Instructor, Substantially revised BIOS6311	<i>Fall 2020-present</i>
Instructor, Summer Internship for Underrepresented Undergrads	<i>Summer 2022</i>

Research Supervision:

Nicholas Strayer (PhD Biostatistics 2019), Role: Committee Member
Kavya Sharman (PhD Chemical and Physical Biology, 2022), Role: Committee Member
Cody Heiser (PhD Chemical and Physical Biology), Role: Committee Member
Coleman Harris (PhD Biostatistics 2022), Role: Dissertation Advisor
Kaidi Kang (PhD Biostatistics), Role: Dissertation Advisor
Jiangmei (Ruby) Xiong (PhD Biostatistics), Role: Dissertation Advisor
Megan Jones (MS Biostatistics), Role: Dissertation Advisor
Julia Sheffield, PhD, Role: K23 Mentor

Membership:

American Statistical Association	<i>2014-Present</i>
Eastern North America Region of the International Biometric Society	<i>2015-Present</i>
Organization for Human Brain Mapping	<i>2015-2016</i>

Grant Support:

2R01MH112847-06A1 (<u>Vandekar</u>)	09/01/2022-06/30/2027
	1.2 calendar months
NIMH	\$26,855 (annual total)
Inter-modal Coupling Image Analytics	
Role: Site Principal Investigator	
K24MH126280 (Woodward)	09/15/2021-08/31/2026
	0.3 calendar months
NIMH	\$149,320 (annual total)
Research and mentoring on cognitive neuroscience and high-field MRI of the thalamus in schizophrenia	
Role: Co-Investigator	

5R01MH123563 (<u>Vandekar</u>)	08/01/2020-05/31/2025
	2.40 calendar months
NIMH	\$2,113,210
Semiparametric Inference for Psychiatric Neuroimaging	
Role: Principal Investigator	
5K23DK118118 (McKernan)	05/13/2019-03/31/2023
	0.60 calendar months
NIDDK	\$686,309
Optimizing Psychosocial Treatment of Interstitial Cystitis/Bladder Pain Syndrome	
Role: Biostatistician	
5R01MH118273 (Heckers)	08/01/2019-05/31/2024
	0.60 calendar months
NIMH	\$3,689,156
The General Factor of Psychopathology in Psychosis and Severe Mental Illness	
Role: Co-Investigator	
5R01NS109114 (Smith)	09/15/2018-06/30/2023
	0.96 calendar months
NINDS	\$1,733,700
Structural and functional MRI of the cervical spinal cord in multiple sclerosis	
Role: Co-Investigator	
1U2CCA233291-01 (Coffey)	09/20/2018-06/30/2023
	3.00 calendar months
NCI	\$10,993,061
Integrative single-cell atlas of host and microenvironment in colorectal neoplastic transformation: data analysis	
Role: Co-Investigator	
5R01MH115000 (Woodward)	06/04/2018-03/31/2022
	0.60 calendar months
NIMH	\$1,587,494
Development of thalamocortical circuits and cognitive function in healthy individuals and youth at-risk for psychosis	
Role: Co-Investigator	
5R01MH111599 (Corbett)	07/01/2017-05/31/2022
	0.60 calendar months
NIMH	\$2,348,293
Examining stress and arousal across pubertal development in ASD	
Role: Co-Investigator	
5R01MH070560 (Heckers)	02/07/2005-03/31/2026
	1.2 calendar months
NIMH	\$818,430 (annual total)
Imaging Hippocampal Function in Psychosis	

Role: Co-Investigator

Invited Presentations:

“Robust and reproducible group-level neuroimage analysis in R with the pbj package,” 2022. CM Statistics Conference. London, UK.

“Cell Normalization and Phenotyping for Multiplexed Single-Cell Imaging,” 2022. JSM Conference. Jefferson University, Philadelphia, PA.

“Cell Normalization and Phenotyping for Multiplexed Single-Cell Imaging,” 2022. JSM Conference. Washington, DC.

“Cell Normalization and Phenotyping for Multiplexed Single-Cell Imaging,” 2022. ENAR Conference. Houston, TX.

“A robust measure of effect size for neuroimage analysis,” 2021. CM Statistics Conference. London, UK.

“A general measure of effect size for neuroimaging analysis,” 2021. Department of Biostatistics, Emory University. Virtual

“A general measure of effect size for neuroimaging analysis,” 2021. Penn Statistical Imaging Endeavor, University of Pennsylvania. Virtual

“Robust spatial extent inference in R using the pbj package,” 2021. Department of Biostatistics, University of California, San Francisco. Virtual

“Thresholding Statistical Maps by Effect Sizes for Spatial Extent Inference of Neuroimages,” 2020. CMStatistics Conference, London, UK.

“Robust Spatial Extent Inference in R using the pbj Package,” 2020. Department of Epidemiology and Biostatistics, University of San Francisco. San Francisco, CA.

“Robust Spatial Extent Inference in R using the pbj Package,” 2019. Department of Biomedical Informatics, University of Arkansas for Medical Sciences. Little Rock, AR.

“Robust Spatial Extent Inference in R using the pbj Package,” 2019. Department of Biostatistics, Boston University. Boston, MA.

“Robust Spatial Extent Inference in R using the pbj Package,” 2019. Department of Statistics, Indiana University, Bloomington. Bloomington, IN.

“On Testing the Spatial Correspondence Between Maps of Human Brain Structure and Function,” 2019. International Chinese Statistical Association. Raleigh, NC.

“Robust Spatial Extent Inference with a Semiparametric Bootstrap Joint Testing Procedure,” 2019. Statistical Methods in Imaging. Irvine, CA.

“Robust Spatial Extent Inference with a Semiparametric Bootstrap Joint Testing Procedure,” 2019. ENAR Conference. Philadelphia, PA.

“Association Tests for Neuroimaging Studies of Development and Disease,” 2018. Columbia University. New York, NY.

“Association Tests for Neuroimaging Studies of Development and Disease,” 2018. Johns Hopkins University. Baltimore, MD.

“Powerful, Fast, and Robust Family-Wise Error Control for Neuroimaging,” 2017. Joint Statistical Meetings. Baltimore, MD.

“More Powerful Permutation Tests Using Voxel-wise Transformations,” 2017. Statistical Methods in Imaging. Pittsburgh, PA. – Student paper award

“Analysis of Spatially Correlated Developmental Neuroimaging Data,” 2015. North Carolina State University. Raleigh, NC.

“Multivariate Nonlinear Age Trajectories in Cortical Thickness,” 2013. Johns Hopkins University. Baltimore, MD.

Peer Reviewed Publications:

1. Dennis, Nancy A., Caitlin R. Bowman, and Simon N. Vandekar. 2012. "True and Phantom Recollection: An fMRI Investigation of Similar and Distinct Neural Correlates and Connectivity." *Neuroimage* 59 (3): 2982–93.
2. Satterthwaite, Theodore D., Russell T. Shinohara, Daniel H. Wolf, Ryan D. Hopson, Mark A. Elliott, Simon N. Vandekar, Kosha Ruparel, Monica E. Calkins, David R. Roalf, and Efstathios D. Gennatas. 2014. "Impact of Puberty on the Evolution of Cerebral Perfusion during Adolescence." *Proceedings of the National Academy of Sciences*, 201400178.
3. Satterthwaite, Theodore D., Simon Vandekar, Daniel H. Wolf, Kosha Ruparel, David R. Roalf, Chad Jackson, Mark A. Elliott, et al. 2014. "Sex Differences in the Effect of Puberty on Hippocampal Morphology." *Journal of the American Academy of Child and Adolescent Psychiatry* 53 (3): 341–350.e1. <https://doi.org/10.1016/j.jaac.2013.12.002>.
4. Schmitt, J. E., J. J. Yi, D. R. Roalf, L. A. Loevner, K. Ruparel, D. Whinna, M. C. Souders, et al. 2014. "Incidental Radiologic Findings in the 22q11.2 Deletion Syndrome." *American Journal of Neuroradiology* 35 (11): 2186–91. <https://doi.org/10.3174/ajnr.A4003>.
5. Vandekar, Simon N., Russell T. Shinohara, Armin Raznahan, David R. Roalf, Michelle Ross, Nicholas DeLeo, Kosha Ruparel, et al. 2015. "Topologically Dissociable Patterns of Development of the Human Cerebral Cortex." *Journal of Neuroscience* 35 (2): 599–609. <https://doi.org/10.1523/JNEUROSCI.3628-14.2015>.
6. Schmitt, J. Eric, Simon Vandekar, James Yi, Monica E. Calkins, Kosha Ruparel, David R. Roalf, Daneen Whinna, et al. 2015. "Aberrant Cortical Morphometry in the 22q11.2 Deletion Syndrome." *Biological Psychiatry, Autism and Brain Development*, 78 (2): 135–43. <https://doi.org/10.1016/j.biopsych.2014.10.025>.
7. Satterthwaite, Theodore D., Daniel H. Wolf, David R. Roalf, Kosha Ruparel, Guray Erus, Simon Vandekar, Efstathios D. Gennatas, et al. 2015. "Linked Sex Differences in Cognition and Functional Connectivity in Youth." *Cerebral Cortex* 25 (9): 2383–94. <https://doi.org/10.1093/cercor/bhu036>.
8. Satterthwaite, T. D., S. N. Vandekar, D. H. Wolf, D. S. Bassett, K. Ruparel, Z. Shehzad, R. C. Craddock, et al. 2015. "Connectome-Wide Network Analysis of Youth with Psychosis-Spectrum Symptoms." *Molecular Psychiatry* 20 (12): 1508–15. <https://doi.org/10.1038/mp.2015.66>.
9. Roalf, David R., Megan Quarmley, Mark A. Elliott, Theodore D. Satterthwaite, Simon N. Vandekar, Kosha Ruparel, Efstathios D. Gennatas, et al. 2016. "The Impact of Quality Assurance Assessment on Diffusion Tensor Imaging Outcomes in a Large-Scale Population-Based Cohort." *NeuroImage* 125 (January): 903–19. <https://doi.org/10.1016/j.neuroimage.2015.10.068>.
10. Satterthwaite, Theodore D., Daniel H. Wolf, Monica E. Calkins, Simon N. Vandekar, Guray Erus, Kosha Ruparel, David R. Roalf, et al. 2016. "Structural Brain Abnormalities in Youth With Psychosis Spectrum Symptoms." *JAMA Psychiatry* 73 (5): 515–24. <https://doi.org/10.1001/jamapsychiatry.2015.3463>.
11. Shanmugan, Sheila, Daniel H. Wolf, Monica E. Calkins, Tyler M. Moore, Kosha Ruparel, Ryan D. Hopson, Simon N. Vandekar, et al. 2016. "Common and Dissociable Mechanisms of Executive System Dysfunction Across Psychiatric

- Disorders in Youth.” *American Journal of Psychiatry* 173 (5): 517–26.
<https://doi.org/10.1176/appi.ajp.2015.15060725>.
12. Vandekar, Simon N., Russell T. Shinohara, Armin Raznahan, Ryan D. Hopson, David R. Roalf, Kosha Ruparel, Ruben C. Gur, Raquel E. Gur, and Theodore D. Satterthwaite. 2016. “Subject-Level Measurement of Local Cortical Coupling.” *NeuroImage* 133 (June): 88–97.
<https://doi.org/10.1016/j.neuroimage.2016.03.002>.
 13. Satterthwaite, T. D., P. A. Cook, S. E. Bruce, C. Conway, E. Mikkelsen, E. Satchell, S. N. Vandekar, T. Durbin, R. T. Shinohara, and Y. I. Sheline. 2016. “Dimensional Depression Severity in Women with Major Depression and Post-Traumatic Stress Disorder Correlates with Fronto-Amygdalar Hypoconnectivity.” *Molecular Psychiatry* 21 (7): 894–902.
<https://doi.org/10.1038/mp.2015.149>.
 14. Kaczkurkin, Antonia N., Tyler M. Moore, Kosha Ruparel, Rastko Ciric, Monica E. Calkins, Russell T. Shinohara, Mark A. Elliott, et al. 2016. “Elevated Amygdala Perfusion Mediates Developmental Sex Differences in Trait Anxiety.” *Biological Psychiatry, Stress, Fear, and Anxiety*, 80 (10): 775–85.
<https://doi.org/10.1016/j.biopsych.2016.04.021>.
 15. Baum, Graham L., Rastko Ciric, David R. Roalf, Richard F. Betzel, Tyler M. Moore, Russell T. Shinohara, Ari E. Kahn, Simon N. Vandekar, Petra E. Rupert, and Megan Quarmley. 2017. “Modular Segregation of Structural Brain Networks Supports the Development of Executive Function in Youth.” *Current Biology* 27 (11): 1561–72.
 16. Roalf, David R., J. Eric Schmitt, Simon N. Vandekar, Theodore D. Satterthwaite, Russell T. Shinohara, Kosha Ruparel, Mark A. Elliott, Karthik Prabhakaran, Donna M. McDonald-McGinn, and Elaine H. Zackai. 2017. “White Matter Microstructural Deficits in 22q11.2 Deletion Syndrome.” *Psychiatry Research: Neuroimaging* 268: 35–44.
 17. Sharma, Anup, Daniel H. Wolf, Rastko Ciric, Joseph W. Kable, Tyler M. Moore, Simon N. Vandekar, Natalie Katchmar, Aylin Daldal, Kosha Ruparel, and Christos Davatzikos. 2017. “Common Dimensional Reward Deficits across Mood and Psychotic Disorders: A Connectome-Wide Association Study.” *American Journal of Psychiatry* 174 (7): 657–66.
 18. Vandekar, Simon N., Haochang Shou, Theodore D. Satterthwaite, Russell T. Shinohara, Alison K. Merikangas, David R. Roalf, Kosha Ruparel, Adon Rosen, Efsthios D. Gennatas, and Mark A. Elliott. 2017. “Sex Differences in Estimated Brain Metabolism in Relation to Body Growth through Adolescence.” *Journal of Cerebral Blood Flow & Metabolism*, 0271678X17737692.
 19. Reardon, P. K., Jakob Seidlitz, Simon Vandekar, Siyuan Liu, Raihaan Patel, Min Tae M. Park, Aaron Alexander-Bloch, Liv S. Clasen, Jonathan D. Blumenthal, and Francois M. Lalonde. 2018. “Normative Brain Size Variation and Brain Shape Diversity in Humans.” *Science* 360 (6394): 1222–27.
 20. Reich, Brian J., Joseph Guinness, Simon N. Vandekar, Russell T. Shinohara, and Ana-Maria Staicu. 2018. “Fully Bayesian Spectral Methods for Imaging Data.” *Biometrics* 74 (2): 645–52.
 21. Valcarcel, Alessandra M., Kristin A. Linn, Fariha Khalid, Simon N. Vandekar, Shahamat Tauhid, Theodore D. Satterthwaite, John Muschelli, Melissa Lynne Martin, Rohit Bakshi, and Russell T. Shinohara. 2018. “A Dual Modeling

- Approach to Automatic Segmentation of Cerebral T2 Hyperintensities and T1 Black Holes in Multiple Sclerosis.” *NeuroImage: Clinical* 20: 1211–21.
22. Valcarcel, Alessandra M., Kristin A. Linn, Simon N. Vandekar, Theodore D. Satterthwaite, John Muschelli, Peter A. Calabresi, Dzung L. Pham, Melissa Lynne Martin, and Russell T. Shinohara. 2018. “MIMoSA: An Automated Method for Intermodal Segmentation Analysis of Multiple Sclerosis Brain Lesions.” *Journal of Neuroimaging*.
 23. Xia, Cedric Huchuan, Zongming Ma, Rastko Ciric, Shi Gu, Richard F. Betzel, Antonia N. Kaczkurkin, Monica E. Calkins, et al. 2018. “Linked Dimensions of Psychopathology and Connectivity in Functional Brain Networks.” *Nature Communications* 9 (1): 3003. <https://doi.org/10.1038/s41467-018-05317-y>.
 24. Alexander-Bloch, Aaron F., Haochang Shou, Siyuan Liu, Theodore D. Satterthwaite, David C. Glahn, Russell T. Shinohara, Simon N. Vandekar, and Armin Raznahan. 2018. “On Testing for Spatial Correspondence between Maps of Human Brain Structure and Function.” *NeuroImage* 178 (September): 540–51. <https://doi.org/10.1016/j.neuroimage.2018.05.070>.
 25. Vandekar, Simon N., Theodore D. Satterthwaite, Adon Rosen, Rastko Ciric, David R. Roalf, Kosha Ruparel, Ruben C. Gur, Raquel E. Gur, and Russell T. Shinohara. 2018. “Faster Family-Wise Error Control for Neuroimaging with a Parametric Bootstrap.” *Biostatistics* 19 (4): 497–513. <https://doi.org/10.1093/biostatistics/kxx051>.
 26. Vandekar, Simon N., Theodore D. Satterthwaite, Cedric H. Xia, Azeez Adebimpe, Kosha Ruparel, Ruben C. Gur, Raquel E. Gur, and Russell T. Shinohara. 2019. “Robust Spatial Extent Inference with a Semiparametric Bootstrap Joint Inference Procedure.” *Biometrics* 75 (4): 1145–55. <https://doi.org/10.1111/biom.13114>.
 28. Corbett, Blythe A., Sara Ioannou, Alexandra P. Key, Catherine Coke, Rachael Muscatello, Simon Vandekar, and Ian Muse. 2019. “Treatment Effects in Social Cognition and Behavior Following a Theater-Based Intervention for Youth with Autism.” *Developmental Neuropsychology* 44 (7): 481–94. <https://doi.org/10.1080/87565641.2019.1676244>.
 29. McHugo, Maureen, Pratik Talati, Kristan Armstrong, Simon N. Vandekar, Jennifer Urbano Blackford, Neil D. Woodward, and Stephan Heckers. 2019. “Hyperactivity and Reduced Activation of Anterior Hippocampus in Early Psychosis.” *American Journal of Psychiatry*, October. <https://doi.org/10.1176/appi.ajp.2019.19020151>.
 30. Corbett, Blythe A., Simon Vandekar, Rachael A. Muscatello, and Yasas Tanguturi. 2020. “Pubertal Timing during Early Adolescence: Advanced Pubertal Onset in Females with Autism Spectrum Disorder.” *Autism Research*.
 31. Parikh, Meghana P., Simon Vandekar, Christina Moore, Linda Thomas, Nathan Britt, Bhinnata Piya, Laura S. Stewart, Einas Batarseh, Lubna Hamdan, and Steffany J. Cavallo. 2020. “Temporal and Genotypic Associations of Sporadic Norovirus Gastroenteritis and Reported Norovirus Outbreaks in Middle Tennessee, 2012–2016.” *Clinical Infectious Diseases* 71 (9): 2398–2404.
 32. Suh, David Y, Simon N Vandekar, Stephan Heckers, and Suzanne N Avery. 2020. “Visual Exploration Differences During Relational Memory Encoding in Early Psychosis.” *Psychiatry Research*, 112910.

33. Larsen, Bart, Josiane Bourque, Tyler M. Moore, Azeez Adebimpe, Monica E. Calkins, Mark A. Elliott, Ruben C. Gur, et al. 2020. "Longitudinal Development of Brain Iron Is Linked to Cognition in Youth." *Journal of Neuroscience* 40 (9): 1810–18. <https://doi.org/10.1523/JNEUROSCI.2434-19.2020>.
34. Vandekar, Simon, Ran Tao, and Jeffrey Blume. 2020. "A Robust Effect Size Index." *Psychometrika* 85 (1): 232–46. <https://doi.org/10.1007/s11336-020-09698-2>.
35. Alexander-Bloch, Aaron F., Armin Raznahan, Simon N. Vandekar, Jakob Seidlitz, Zhixin Lu, Samuel R. Matthias, Emma Knowles, et al. 2020. "Imaging Local Genetic Influences on Cortical Folding." *Proceedings of the National Academy of Sciences* 117 (13): 7430–36. <https://doi.org/10.1073/pnas.1912064117>.
36. Avery, Suzanne N., Maureen McHugo, Kristan Armstrong, Jennifer U. Blackford, Simon Vandekar, Neil D. Woodward, and Stephan Heckers. 2020. "Habituation during Encoding: A New Approach to the Evaluation of Memory Deficits in Schizophrenia." *Schizophrenia Research*, July. <https://doi.org/10.1016/j.schres.2020.07.007>.
37. Hamdan, Lubna, Simon Vandekar, Andrew J Spieker, Herdi Rahman, Danielle Ndi, Emily S Shekarabi, Jyotsna Thota, et al. 2020. "Epidemiological Trends of Racial Differences in Early- and Late-Onset Group B Streptococcus Disease in Tennessee." *Clinical Infectious Diseases*, October. <https://doi.org/10.1093/cid/ciaa1511>.
38. Kim, Ahra, Sarah L. Rader, Thomas V. Fernandez, Simon N. Vandekar, and Alan S. Lewis. 2020. "Leveraging Aggression Risk Gene Expression in the Developing and Adult Human Brain to Guide Future Precision Interventions." *Molecular Psychiatry*, October, 1–3. <https://doi.org/10.1038/s41380-020-00903-3>.
39. Avery, Suzanne N., Kristan Armstrong, Maureen McHugo, Simon Vandekar, Jennifer Urbano Blackford, Neil D. Woodward, and Stephan Heckers. 2021. "Relational Memory in the Early Stage of Psychosis: A 2-Year Follow-up Study." *Schizophrenia Bulletin* 47 (1): 75–86.
40. Connell, Jennifer, Ahra Kim, Nathan E. Brummel, Mayur B. Patel, Simon N. Vandekar, Pratik Pandharipande, Robert S. Dittus, Stephan Heckers, E. Wes Ely, and Jo Ellen Wilson. 2021. "Advanced Age Is Associated With Catatonia in Critical Illness: Results From the Delirium and Catatonia Prospective Cohort Investigation." *Frontiers in Psychiatry* 12: 1999. <https://doi.org/10.3389/fpsy.2021.673166>.
41. McHugo, Maureen, Suzanne Avery, Kristan Armstrong, Baxter P. Rogers, Simon N. Vandekar, Neil D. Woodward, Jennifer Urbano Blackford, and Stephan Heckers. 2021. "Anterior Hippocampal Dysfunction in Early Psychosis: A 2-Year Follow-up Study." *Psychological Medicine*, 1–10.
42. McKernan, Lindsey C., Leslie J. Crofford, Ahra Kim, Simon N. Vandekar, William S. Reynolds, Kathryn A. Hansen, Daniel J. Clauw, and David A. Williams. 2021. "Electronic Delivery of Pain Education for Chronic Overlapping Pain Conditions: A Prospective Cohort Study." *Pain Medicine*.
43. Muscatello, Rachael A., Simon N. Vandekar, and Blythe A. Corbett. 2021. "Evidence for Decreased Parasympathetic Response to a Novel Peer Interaction in Older Children with Autism Spectrum Disorder: A Case-Control Study." *Journal of Neurodevelopmental Disorders* 13 (1): 1–13.
44. Weinstein, Sarah M., Simon N. Vandekar, Azeez Adebimpe, Tinashe M. Tapera, Timothy Robert-Fitzgerald, Ruben C. Gur, Raquel E. Gur, et al. 2021. "A

- Simple Permutation-Based Test of Intermodal Correspondence.” *Human Brain Mapping* 42 (16): 5175–87. <https://doi.org/10.1002/hbm.25577>.
45. Roeske, Maxwell J., Maureen McHugo, Simon Vandekar, Jennifer Urbano Blackford, Neil D. Woodward, and Stephan Heckers. 2021. “Incomplete Hippocampal Inversion in Schizophrenia: Prevalence, Severity, and Impact on Hippocampal Structure.” *Molecular Psychiatry*, January, 1–10. <https://doi.org/10.1038/s41380-020-01010-z>.
 46. Vandekar, Simon N., and Jeremy Stephens. 2021. “Improving the Replicability of Neuroimaging Findings by Thresholding Effect Sizes Instead of P-Values.” *Human Brain Mapping* 42 (8): 2393–98. <https://doi.org/10.1002/hbm.25374>.
 47. Muscatello, Rachael A., Ahra Kim, Simon Vandekar, and Blythe A. Corbett. 2021. “Diagnostic and Physical Effects in Parasympathetic Response to Social Evaluation in Youth With and Without Autism Spectrum Disorder.” *Journal of Autism and Developmental Disorders*, August. <https://doi.org/10.1007/s10803-021-05224-0>.
 48. Avery, Suzanne N., Anna S. Huang, Julia M. Sheffield, Baxter P. Rogers, Simon Vandekar, Alan Anticevic, and Neil D. Woodward. 2021. “Development of Thalamocortical Structural Connectivity in Typically Developing and Psychosis Spectrum Youth.” *Biological Psychiatry: Cognitive Neuroscience and Neuroimaging*, October. <https://doi.org/10.1016/j.bpsc.2021.09.009>.
 49. Hamdan, Lubna, Varvara Probst, Zaid Haddadin, Herdi Rahman, Andrew J. Spieker, Simon Vandekar, Laura S. Stewart, et al. 2021. “Influenza Clinical Testing and Oseltamivir Treatment in Hospitalized Children with Acute Respiratory Illness, 2015–2016.” *Influenza and Other Respiratory Viruses*, October. <https://doi.org/10.1111/irv.12927>.
 50. Huang, Anna S., Baxter P. Rogers, Julia M. Sheffield, Simon Vandekar, Alan Anticevic, and Neil D. Woodward. 2021. “Characterizing Effects of Age, Sex and Psychosis Symptoms on Thalamocortical Functional Connectivity in Youth.” *NeuroImage* 243 (November): 118562. <https://doi.org/10.1016/j.neuroimage.2021.118562>.
 51. Chen, Bob, Cherie’ R. Scurrah, Eliot T. McKinley, Alan J. Simmons, Marisol A. Ramirez-Solano, Xiangzhu Zhu, Nicholas O. Markham, et al. 2021. “Differential Pre-Malignant Programs and Microenvironment Chart Distinct Paths to Malignancy in Human Colorectal Polyps.” *Cell* 184 (26): 6262–6280.e26. <https://doi.org/10.1016/j.cell.2021.11.031>.
 52. Baller, Erica B., Alessandra M. Valcarcel, Azeez Adebimpe, Aaron Alexander-Bloch, Zaixu Cui, Ruben C. Gur, Raquel E. Gur, Bart L. Larsen, Kristin A. Linn, and Carly M. O’Donnell. 2022. “Developmental Coupling of Cerebral Blood Flow and fMRI Fluctuations in Youth.” *Cell Reports* 38 (13): 110576.
 53. Corbett, Blythe A., Rachael A. Muscatello, Ahra Kim, Simon Vandekar, Sara Duffus, Sloane Sparks, and Yayas Tanguturi. 2022. “Examination of Pubertal Timing and Tempo in Females and Males with Autism Spectrum Disorder Compared to Typically Developing Youth.” *Autism Research* 15 (10): 1894–1908. <https://doi.org/10.1002/aur.2786>.
 54. Finlayson, AJ Reid, Ahra Kim, April B. Mallory, Simon Vandekar, and Peter R. Martin. 2022. “Changing Characteristics of Physicians Referred for Fitness-for-Duty Evaluation.” *General Hospital Psychiatry* 77: 128–29.

55. Harris, Coleman, Julia Wrobel, and Simon Vandekar. 2022. "Mxnorm: An R Package to Normalize Multiplexed Imaging Data." *Journal of Open Source Software* 7 (71): 4180.
56. Hu, Fengling, Sarah M. Weinstein, Erica B. Baller, Alessandra M. Valcarcel, Azeez Adebimpe, Armin Raznahan, David R. Roalf, et al. 2022. "Voxel-Wise Intermodal Coupling Analysis of Two or More Modalities Using Local Covariance Decomposition." *Human Brain Mapping* 43 (15): 4650–63. <https://doi.org/10.1002/hbm.25980>.
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