

Robert A. Phillips III, Ph.D.

CONTACT INFORMATION	<i>Mobile:</i> +1-410-430-9571 <i>E-mail:</i> Robert.Phillips@libd.org
EDUCATION	Lieber Institute for Brain Development, Baltimore, Maryland • Postdoctoral Fellow - Translational Neuroscience Division 2023 - Present • Advisor: Keri Martinowich, Ph.D. University of Alabama at Birmingham, Birmingham, Alabama • Ph.D., Graduate Biomedical Sciences 2018 - 2023 • Defense Date: May 23rd, 2023 • Theme: Genetics, Genomics, and Bioinformatics • GPA: 4.00 • Advisor: Jeremy Day, Ph.D. Salisbury University, Salisbury, Maryland • B.S., Biology 2013 - 2017 • Minor: Chemistry • <i>Magna Cum Laude</i> • GPA: 3.896 • Advisor: Philip D. Anderson, Ph.D.
GRANTS AND FELLOWSHIPS	Brain Initiative F32 (F32MH139150) 2025-Present Kavli Neuroscience Discovery Institute Postdoctoral Fellowship 2024-2025 T32 in Neurobiology of Cognition and Cognitive Disorders 2019-2021 AMC21 Scholarship, 1 of 3 scholars in class of 58 2019-2021 Blazer Research Fellowship 2018-2019
AWARDS AND HONORS	Society of Biological Psychiatry Travel Awardee 2026 Kavli Neuroscience Discovery Institute Distinguished Postdoctoral Fellow 2024 Carmichael Scholar, Awarded to top graduate student at UAB 2023 First place poster award, UAB CNC Retreat 2022 AMC21 Scholar 2019 <i>Magna Cum Laude</i>, Salisbury University 2017 Phi Kappa Phi, Honor Society (Top 10% of Class), Salisbury University 2017 Beta Beta Beta, Biology Honor Society, Salisbury University 2016 Phi Eta Sigma, Freshman Honor Society, Salisbury University 2014
PEER-REVIEWED PUBLICATIONS	Prashanthi Ravichandran*, Svitlana V Bach*, Robert A Phillips III, Madeline R Valentine, Nicholas J Eagles, Yufeng Du, Ishbel Del Rosario, Haya A AlGrain, Sarah E Maguire, Ryan A Miller, Heena R Divecha, Madhavi Tippani, Kelsey D Montgomery, Joel E Kleinman, Shizhong Han, Stephanie C Page, Thomas M Hyde, Leonardo Collado-Torres, Alexis Battle, Keri Martinowich, Stephanie C Hicks+, Kristen R Maynard+. 2026. Spatiomolecular mapping reveals anatomical organization of heterogeneous cell types in the human nucleus accumbens. <i>Neuron</i>. DOI: 10.1016/j.neuron.2026.06.002. *These authors contributed equally. +Co-corresponding authors Jennifer J Tuscher, Angela Cleere, Robert A Phillips III, Catherine E Newman, Guy Twa, Nathaniel J Robinson, Lara Ianov, Robert E Sorge, Jeremy J Day. 2026. Morphine regulates astrocyte transcriptional dynamics in the ventral tegmental area by

stimulation of glucocorticoid signaling. *eLife*. DOI: 10.7554/eLife.110697.1.sa3.

Guy M Twa, **Robert A Phillips III**, Nathaniel J Robinson, Jeremy J Day. 2025. Accurate sample deconvolution of pooled snRNA-seq using sex-dependent gene expression patterns. *NAR Genomics and Bioinformatics*. DOI: 10.1093/nargab/lqaf156.

Kasey L Brida, Emily T Jorgensen, **Robert A Phillips III**, Catherine E Newman, Jennifer J Tuscher, Emily K Moring, Morgan E Zipperly, Lara Ianov, Kelsey D Montgomery, Madhavi Tippiani, Thomas M Hyde, Kristen R Maynard, Keri Martinowich, Jeremy J Day. 2025. Reelin marks cocaine-activated striatal neurons, promotes neuronal excitability, and regulates cocaine reward. *Science Advances*. DOI: 10.1126/sciadv.ads4441.

Robert A Phillips III*, Seyun Oh*, Svitlana V Bach, Yufeng Du, Ryan A Miller, Joel E Kleinman, Thomas M Hyde, Stephanie C Hicks+, Stephanie C Page+, Keri Martinowich+. 2025. Transcriptomic characterization of human lateral septum neurons reveals conserved and divergent marker genes across species. *iScience*. DOI: 10.1016/j.isci.2025.111820. *These authors contributed equally. +Co-corresponding authors

Lionel A Rodriguez, Matthew Nguyen Tran, Renee Garcia-Flores, Seyun Oh, **Robert A. Phillips III**, Elizabeth A Pattie, Heena R Divecha, Sun Hong Kim, Joo Heon Shin, Yong Kyu Lee, Carly Montoya, Andrew E Jaffe, Leonardo Collado-Torres, Stephanie C Page, Keri Martinowich. 2024. TrkB-dependent regulation of molecular signaling across septal cell types. *Translational Psychiatry*. DOI: 10.1038/s41398-024-02758-6.

Emma Andraka, **Robert A Phillips III**, Kasey L Brida, Jeremy J Day. 2024. *Chst9* marks a spatially and transcriptionally unique population of *Oprm1*-expressing neurons in the nucleus accumbens. *Addiction Neuroscience*. DOI: 10.1016/j.addicn.2024.100153.

Robert A. Phillips III, Ethan Wan, Jennifer J. Tuscher, David Reid, Olivia Drake, Lara Ianov, Jeremy J. Day. 2023. Temporally specific gene expression and chromatin remodeling proteins regulate a conserved *Pdyn* enhancer. *eLife*. DOI: 10.7554/eLife.89993.3

Robert A. Phillips III, Jennifer J. Tuscher, N. Dalton Fitzgerald, Ethan Wan, Morgan E. Zipperly, Corey G. Duke, Lara Ianov, Jeremy J. Day. 2023. Distinct subpopulations of D1 medium spiny neurons exhibit unique transcriptional responsiveness to cocaine. *Molecular and Cellular Neuroscience*. DOI: 10.1016/j.mcn.2023.103849.

Robert A. Phillips III*, Jennifer J. Tuscher*, Samantha L. Black, Emma Andraka, Natalie D. Fitzgerald, Lara Ianov, Jeremy J. Day. 2022. An atlas of transcriptionally defined cell populations in the rat ventral tegmental area. *Cell Reports*. DOI: 10.1016/j.celrep.2022.110616. *These authors contributed equally.

Katherine E. Savell*, Morgan E. Zipperly*, Jennifer J. Tuscher*, Corey G. Duke*, **Robert A. Phillips III***, Allison J. Bauman, Saakshi Thukral, Faraz A. Sultan, Nicholas Goska, Lara Ianov, Jeremy J. Day. 2020. A dopamine-induced gene expression signature regulates neuronal function and cocaine response. *Science Advances*. DOI: 10.1126/sciadv.aba4221. *These authors contributed equally.

Nancy V.N. Carullo, **Robert A. Phillips III**, Rhiana C. Simon, Salomon S.A. Roman Soto, Jenna E. Hinds, Aaron J. Salisbury, Jasmin S. Revanna, Kendra D. Bunner, Lara Ianov, Faraz A. Sultan, Katherine E. Savell, Charles A. Gersbach, Jeremy J. Day. 2020. Enhancer RNAs predict enhancer-gene regulatory links and are critical for enhancer

function in neuronal systems. *Nucleic Acids Research*. DOI: 10.1093/nar/gkaa671.

Sarah E. Kohrt, Wisam N. Awadallah, **Robert A. Phillips III**, Thomas C. Case, Renjie Jim, Jagpreet S. Nanda, Xiuping Yu, Peter E. Clark, Yajun Yi, Robert J. Matusik, Philip D. Anderson, Magdalena M. Grabowska. 2020. Identification of genes required for enzalutamide resistance in castration-resistant prostate cancer cells *in vitro*. *Molecular Cancer Therapeutics*. DOI: 10.1158/1535-7163.MCT-20-0244.

Corey G. Duke, Svitlana V. Bach, Jasmin S. Revanna, Faraz A. Sultan, Nicholas T. Southern, Mary N. Davis, Nancy V.N. Carullo, Allison J. Bauman, **Robert A. Phillips III**, Jeremy J. Day. 2020. An improved CRISPR/dCas9 interference tool for neuronal gene suppression. *Frontiers in Genome Editing*. DOI: 10.3389/fgeed.2020.00009.

Corey G. Duke, Katherine E. Savell, Jennifer J. Tuscher, **Robert A. Phillips III**, Jeremy J. Day. 2020. Blue light-induced gene expression alterations in cultured neurons are the result of phototoxic interactions with neuronal culture media. *eNeuro*. DOI:10.1523/ENEURO.0386-19.2019.

Abhinav Nellore, Andrew E Jaffe, Jean-Philippe Fortin, Jose Alquicira-Hernandez, Leonardo Collado-Torres, Siruo Wang, **Robert A Phillips III**, Nishika Karbhari, Kasper D Hansen, Ben Langmead, Jeffrey T Leek. 2016. Human splicing diversity and the extent of unannotated splice junctions across human RNA-seq samples on the Sequence Read Archive. *Genome Biology*. DOI: 10.1186/s13059-016-1118-6.

PREPRINTS

Robert A. Phillips III*, Jianing Yao, Svitlana V. Bach, Ishbel Del Rosario Alvia, Yufeng Du, Sarah E. Maguire, Ruth Zhang, Ryan A. Miller, Joel E. Kleinman, Thomas M. Hyde, Keri Martinowich+, Kristen R. Maynard+, Stephanie C. Hicks+. 2026. Three dimensional reconstruction of the human nucleus accumbens reveals topographic organization and molecular heterogeneity of D1-islands across the anterior posterior axis. *bioRxiv*. DOI: 10.64898/2026.09.25.754413. *These authors contributed equally. +Co-corresponding authors

MENTORING

Natalia Gonzalez-Perez , JHU Neuroscience undergraduate	2025-2026
Quill Yang , JHU Neuroscience undergraduate	2024-2025
Olivia Drake , UAB GBS-MSTP rotation student	2023
Collin Ainslie , UAB GBS rotation student	2022
David Reid , SURE-GM summer research intern	2022
Ethan Wan , UAB Neuroscience undergraduate/EMSAP student	2021-2023
Tanner Caton , UAB Neuroscience undergraduate/EMSAP student	2021-2023
Kasey Brida , UAB GBS-MSTP rotation student	2020
Matthew Boyajian , UAB Neuroscience undergraduate student	2019-2020

TEACHING EXPERIENCE

Center for Student Achievement , Salisbury, University	
<i>Supplemental Instructor for Organic Chemsitry</i>	2016-2017

PRESENTATIONS

Robert A. Phillips III, Jianing Yao, Svitlana V. Bach, Ishbel Del Rosario, Yufeng Du, Ruth Zhang, Sara Maguire, Ryan A. Miller, Joel E. Kleinman, Thomas M. Hyde, Kristen Maynard, Stephanie C. Hicks, Keri Martinowich. Spatiomolecular Characterization of DRD1-Expressing Islands in the human NAc. NIDA GECCRT 2026. Oral

Presentation.

Robert A. Phillips III, Jianing Yao, Svitlana V. Bach, Ishbel Del Rosario, Yufeng Du, Ruth Zhang, Sara Maguire, Ryan A. Miller, Joel E. Kleinman, Thomas M. Hyde, Kristen Maynard, Stephanie C. Hicks, Keri Martinowich. Spatiomolecular Characterization of DRD1-Expressing Islands in the human NAc. SOBP 2026. Poster Presentation.

Robert A. Phillips III, Jianing Yao, Prashanthi Ravichandran, Svitlana V Bach, Madeline R Valentine, Nicholas J Eagles, Yufeng Du, Ishbel Del Rosario, Ryan A Miller, Heena R Divecha, Madhavi Tippi, Kelsey D Montgomery, Joel E Kleinman, Shizhong Han, Stephanie C Page, Thomas M Hyde, Leonardo Collado-Torres, Alexis Battle, Keri Martinowich, Stephanie C Hicks, Kristen R Maynard. Spatiomolecular Characterization of Transcriptionally Distinct DRD1-Expressing Islands in the Human NAc. American College of Neuropsychopharmacology 2025. Oral Presentation.

Robert A. Phillips III, Madeline Abramson, Yufeng Du, Svitlana V. Bach, Sarah E. Maguire, Ryan Miller, Ishbel Del Rosario, McKenna Romac, Joel E. Kleinman, Thomas M. Hyde, Stephanie Hicks, Vincent Costa, Keri Martinowich, Stephanie C. Page. Cellular Resolution Spatial and Transcriptomic Characterization of the Human Lateral Septum Across Neuroanatomical Axes. American College of Neuropsychopharmacology 2025. Poster Presentation.

Robert A Phillips III, Seyun Oh, Svitlana V Bach, Yufeng Du, Ryan A Miller, Joel E Kleinman, Thomas M Hyde, Stephanie C Hicks, Stephanie C Page, Keri Martinowich. Transcriptomic characterization of human lateral septum neurons reveals conserved and divergent marker genes across species. Society for Neuroscience 2024. Oral Presentation.

Robert A. Phillips III, Ethan Wan, Jennifer J. Tuscher, David Reid, Olivia Drake, Lara Ianov, Jeremy J. Day. Temporally specific gene expression and chromatin remodeling programs regulate a conserved Pdyn enhancer. Society for Neuroscience 2023. Poster Presentation.

Robert A. Phillips III, Brooke Walker, Lara Ianov, Jeremy J. Day. Temporally specific gene expression programs regulate activity-dependent chromatin remodeling at genomic enhancers in striatal neurons. 2022 UAB Comprehensive Neuroscience Center Annual Retreat. Poster Presentation.

Robert A. Phillips III, Brooke Walker, Lara Ianov, Jeremy J. Day. Temporally specific gene expression programs regulate activity-dependent chromatin remodeling at genomic enhancers in striatal neurons. Biology of Genomes 2022. Poster Presentation.

Robert A. Phillips III, Jennifer J. Tuscher, Emma Andraka, Samantha Black, Lara Ianov, Jeremy J. Day. An atlas of transcriptionally defined cell types in the rat ventral tegmental area. Winter Conference on Brain Research 2022. Poster Presentation.

Robert A. Phillips III, Jennifer J. Tuscher, Samantha Black, Lara Ianov, Jeremy J. Day. An atlas of transcriptionally distinct cell populations in the rat ventral tegmental area. Virtual Dopamine 2021. Oral Presentation.

Robert A. Phillips III, Jennifer J. Tuscher, Samantha Black, Lara Ianov, Jeremy J. Day. An atlas of transcriptionally distinct cell populations in the rat ventral tegmental area. NIDA Genetics and Epigenetics Cross-Cutting Research Team Meeting 2021. Virtual Poster Presentation.

Robert A. Phillips III, Nancy V.N. Carullo. Jeremy J. Day. Leveraging transcriptomic and epigenomic data to identify brain region specific enhancers. 2020 GBS Symposium. Virtual Oral Presentation.

Robert A. Phillips III, Nancy Carullo, Salomon Ramon, Katherine Savell, Lara Ianov, Jeremy J. Day. Transcriptomic analysis to identify brain region specific genomic enhancers. Poster Presentation. Society for Neuroscience 2019. Chicago, Illinois.

Robert A. Phillips III, Corey G. Duke, Jennifer Tuscher, Morgan Zipperly, Lara Ianov, Katherine E. Savell, Jeremy J. Day. Single-nucleus RNA-Seq reveals dopamine-dependent gene expression changes in striatal neuron subtypes. Abstract for Poster Presentation. Gordon Research Conference – Catecholamines 2019. Newry, Maine.

Robert A. Phillips III, Philip Anderson. Identification of genes driving resistance to Enzalutamide. Abstract for Oral Presentation. Salisbury University Student Research Conference. Salisbury, Maryland.

Robert A. Phillips III, Philip Anderson. *De novo* motif finding to identify a consensus binding sequence for *MYB* and *NFIB*. Abstract for Oral Presentation. Salisbury University Student Research Conference. Salisbury, Maryland.