

Nicole A. Perry-Hauser (Perry), PhD

New York State Psychiatric Institute

Molecular Therapeutics/Department of Psychiatry

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CURRENT POSITION

06/2023 **Research Scientist I**, New York State Psychiatric Institute, New York, NY
Associate Research Scientist, Columbia University, Department of Psychiatry, New York, NY
PI: Jonathan A. Javitch

EDUCATION

2019-2023 **Postdoctoral Research Fellow**, Columbia University, Department of Psychiatry, New York, NY, PI: Jonathan A. Javitch
06-09/2019 **Postdoctoral Research Scientist**, Columbia University, Department of Surgery, New York, NY, PI: Alex R.B. Thomsen *left due to lab relocation
2014-2019 **Ph.D.**, Pharmacology, Vanderbilt University, Nashville, TN (Defended March 4th, 2019)¹, PIs: Vsevolod V. Gurevich and Tina M. Iverson
2010-2014 **B.S.**, Biology, Wittenberg University, Springfield, OH (University Honors; Departmental Honors; Summa Cum Laude)
2010-2014 **B.A.**, Chemistry, Wittenberg University, Springfield, OH (University Honors; Summa Cum Laude)
2010-2014 Minor in Music, Wittenberg University, Springfield, OH

PUBLICATIONS (ARTICLES, 10 first author)

Published²

1. Hahn H, Daly C, Little J, **Perry-Hauser NA**, Inoue A, Plouffe B, et al. Endosomal chemokine receptor signalosomes regulate central mechanisms underlying cell migration. *BioRxiv*. 2022 Sep 28. DOI: 10.1101/2022.09.27.509755.
2. Pederick, DT*, **Perry-Hauser, NA***, Meng H, He Z, Javitch, JA, Luo L. Context-dependent requirement of G protein coupling for Latrophilin-2 in target selection of hippocampal axons. *eLife*. 2023 Mar 10. DOI: <https://doi.org/10.7554/eLife.83529>. PubMed Central ID: PMC10118387.
3. **Perry-Hauser, NA**, VanDyck, MW, Lee, KH, Shi, L, Javitch, JA. Disentangling autoproteolytic cleavage from tethered agonist-dependent activation of the adhesion receptor ADGRL3. *Journal of Biological Chemistry*. Dec;298(12):102594. PubMed Central ID: PMC9674912.
4. **Perry-Hauser, N.A.**, Kaoud, T.S., Stoy, H., Zhan, X., Chen, Q., Dalby, K.N., Iverson, T.M., Gurevich, V.V., Gurevich, E.V. Short arrestin-3-derived peptides activate JNK3 in cells. *International Journal of Molecular Sciences*. 2022; 23(15):8679. <https://doi.org/10.3390/ijms23158679>. PubMed Central ID: PMC9368909.
5. **Perry-Hauser, N.A.**, Bennet Hopkins, J., Zhuo, Y., Zhen, C., Perez, I., Schultz, K.M., Vishnivetsky, S.A., Kaya, A.I., Sharma, S., Dalby, K.N., Chung, K.Y., Klug, C.S., Gurevich, V.V., Iverson, T.M. The two non-visual arrestins engage ERK2 differently. *Journal of Molecular Biology*. 2022 Apr; 434(7): 167465. 10.1016/j.jmb.2022.167465. PubMed Central ID: PMC8977243.
6. **Perry-Hauser, NA**, Asher, WA, Pederson, MH, Javitch, JA. Assays for detecting arrestin interaction with GPCRs. *Methods in Cell Biology*. 2021. <https://doi.org/10.1016/bs.mcb.2021.06.007>. PMID: 34752339.
7. Mathiasen S, Palmisano T, **Perry NA**, Stoveken HM, Vizurruga A, McEwen DP, Okashah N, Langenhan T, Inoue A, Lambert NA, Tall GG, Javitch JA. G12/13 is activated by acute tethered agonist exposure in the adhesion GPCR ADGRL3. *Nat Chem Biol*. 2020 Dec;16(12):1343-1350. PubMed Central ID: PMC7990041.

¹ Degree conferred March 25th, 2019

² A public version of my bibliography can be found at <https://www.ncbi.nlm.nih.gov/myncbi/nicole.perry.2/bibliography/public/>

*Denotes shared authorship

8. Kaya AI, **Perry NA**, Gurevich VV, Iverson TM. Phosphorylation barcode-dependent signal bias of the dopamine D1 receptor. *Proc Natl Acad Sci U S A*. 2020 Jun 23;117(25):14139-14149. PubMed Central ID: PMC7321966.
9. **Perry, N.A.**, Fialkowski, K.P., Kaoud, T.S., Kaya, A.I., Chen, A.L., Taliaferro, J.M., Gurevich, V.V., Dalby, K.N., and Iverson, T.M. Arrestin-3 interaction with maternal embryonic leucine zipper kinase. *Cell Signal*; DOI 10.1016/j.cellsig.2019.109366 (2019). PubMed Central ID: PMC6717526.
10. Sammons RM*, **Perry NA***, Li Y, Cho EJ, Piserchio A, Zamora-Olivares DP, Ghose R, Kaoud TS, Debevec G, Bartholomeusz C, Gurevich VV, Iverson TM, Giulianotti M, Houghten RA, Dalby KN. A Novel Class of Common Docking Domain Inhibitors That Prevent ERK2 Activation and Substrate Phosphorylation. *ACS Chem Biol*. 2019 Jun 21;14(6):1183-1194. PubMed Central ID: PMC7105935.
11. **Perry NA**, Zhan X, Gurevich EV, Iverson TM, Gurevich VV. Using In Vitro Pull-Down and In-Cell Overexpression Assays to Study Protein Interactions with Arrestin. *Methods Mol Biol*. 2019;1957:107-120. PubMed Central ID: PMC7039183.
12. **Perry NA**, Kaoud TS, Ortega OO, Kaya AI, Marcus DJ, Pleinis JM, Berndt S, Chen Q, Zhan X, Dalby KN, Lopez CF, Iverson TM, Gurevich VV. Arrestin-3 scaffolding of the JNK3 cascade suggests a mechanism for signal amplification. *Proc Natl Acad Sci U S A*. 2019 Jan 15;116(3):810-815. PubMed Central ID: PMC6338856.
13. Starbird CA*, **Perry NA***, Chen Q, Berndt S, Yamakawa I, Loukachevitch LV, Limbrick EM, Bachmann BO, Iverson TM, McCulloch KM. The Structure of the Bifunctional Everninomicin Biosynthetic Enzyme EvdMO1 Suggests Independent Activity of the Fused Methyltransferase-Oxidase Domains. *Biochemistry*. 2018 Dec 18;57(50):6827-6837. PubMed Central ID: PMC7231510.
14. Chen Q, **Perry NA**, Vishnivetskiy SA, Berndt S, Gilbert NC, Zhuo Y, Singh PK, Tholen J, Ohi MD, Gurevich EV, Brautigam CA, Klug CS, Gurevich VV, Iverson TM. Structural basis of arrestin-3 activation and signaling. *Nat Commun*. 2017 Nov 10;8(1):1427. PubMed Central ID: PMC5681653
15. Prokop S, **Perry NA**, Vishnivetskiy SA, Toth AD, Inoue A, Milligan G, Iverson TM, Hunyady L, Gurevich VV. Differential manipulation of arrestin-3 binding to basal and agonist-activated G protein-coupled receptors. *Cell Signal*. 2017 Aug;36:98-107. PubMed Central ID: PMC5797668
16. Zhu L, Rossi M, Cui Y, Lee RJ, Sakamoto W, **Perry NA**, Urs NM, Caron MG, Gurevich VV, Godlewski G, Kunos G, Chen M, Chen W, Wess J. Hepatic β -arrestin 2 is essential for maintaining euglycemia. *J Clin Invest*. 2017 Aug 1;127(8):2941-2945. PubMed Central ID: PMC5531395.
17. Zhu L, Almaça J, Dadi PK, Hong H, Sakamoto W, Rossi M, Lee RJ, Vierra NC, Lu H, Cui Y, McMillin SM, **Perry NA**, Gurevich VV, Lee A, Kuo B, Leapman RD, Matschinsky FM, Doliba NM, Urs NM, Caron MG, Jacobson DA, Caicedo A, Wess J. β -arrestin-2 is an essential regulator of pancreatic β -cell function under physiological and pathophysiological conditions. *Nat Commun*. 2017 Feb 1;8:14295. PubMed Central ID: PMC5296650.
18. Zhan X, Stoy H, Kaoud TS, **Perry NA**, Chen Q, Perez A, Els-Heindl S, Slagis JV, Iverson TM, Beck-Sickinger AG, Gurevich EV, Dalby KN, Gurevich VV. Peptide mini-scaffold facilitates JNK3 activation in cells. *Sci Rep*. 2016 Feb 12;6:21025. PubMed Central ID: PMC4751492.

PUBLICATIONS – BOOK CONTRIBUTIONS, REVIEWS, COMMENTARY

19. **Perry-Hauser, N.A.**, Zhan, X., Iverson, T.M. Arrestin scaffolding and activation of MAPK cascades. Ch 4 in *Arrestins*. Springer-Verlag, Berlin-Heidelberg. 2022. DOI: <https://doi.org/10.1016/B978-0-323-85756-7.00001-7>
20. Bender BJ*, Bock A*, Nesheva DN*, **Perry-Hauser NA.*** Viewpoints on the First Transatlantic GPCR Symposium for Early-Career Investigators. *ACS Pharmacol Transl Sci*. 2021 Oct 8;4(5):1705-1711. PubMed Central ID: PMC8506598.
21. **Perry NA**, Zhan X, Iverson TM, Gurevich EV, Gurevich VV. Monofunctional Elements of multi-functional arrestin proteins. Ch 18 in *The structural basis of arrestin functions*. Springer-Verlag. 2017; (978-3-319-57552-0).
22. Xu T, **Perry N**, Chauhan A, Sayler G, Ripp S. Microbial indicators for monitoring pollution and bioremediation, p.115-132. *In* Das S (ed.), *Microbial Biodegradation and Bioremediation*. Elsevier, New York, NY. 2014. DOI: <http://dx.doi.org/10.1016/B978-0-12-800021-2.00005-4>.

GRANTS

2023-2024 **Columbia University Institute for Developmental Sciences Award**, Adhesion GPCR latrophilin-3 modulation of dopaminergic neurotransmission (\$60,000 in salary support)

- 2020-2023 **Award ID T32 MH015144-42:** Ruth L. Kirschstein National Research Service Award in Mood and Anxiety Disorders: From Animal Models to Patient
- 2018-2019 **Award ID 18PRE34030017:** American Heart Association Summer 2018 One Year Fellowship
“Arrestin-3 interaction with the ASK1-MKK4/7-JNK3 cascade”
- 2016-2018 **Award ID 16PRE30180007:** American Heart Association Predoctoral Fellowship
“Arrestin-3 scaffolding of the JNK3 activation cascade as a model of arrestin-dependent signaling”
- 2015-2016 **Award ID T32 GM007628-38:** Ruth L. Kirschstein National Research Service Award Training in Pharmacological Sciences

GRANTS – REVIEW PENDING

- 12/01/2023-11/30/2028 **Award ID 1 K99 MH132888-01A1:** NIH Pathway to Independence Award
“Adhesion GPCR Latrophilin-3 Modulation of Dopaminergic Neurotransmission”
Impact Score: 27
Council Meeting Date: 2023/10

FINANCIAL SUPPORT

- 2019 Financial aid to attend the Cold Spring Harbor Laboratory Scientific Writing Retreat (\$700)
- 2018 Lai Sulin Scholarship (\$5,000)
Dean’s Award for Exceptional Achievement (\$5,000)
- 2017 Philanthropic Educational Organization (P.E.O.) Scholar Award (P.S.A.) (\$15,000)
Lee Limbird Dissertation Enhancement Award (\$1,000)
- 2014 Mortar Board Fellow (\$5,000 stipend)
- 2010 Scholarship: Kiwanis Club (\$4,000 stipend)
Scholarship: Rotary Club (\$500 stipend)
Wittenberg Scholar Award

HONORS AND AWARDS

- 2023 **Intersections Science Fellows Symposium (ISFS) Associate** at Yale University
Compass Scholar at Washington University School of Medicine
- 2021 **Leading Edge Fellow** in Neuroscience, HHMI/Janelia Research Campus
- 2019 **Top Poster Prize** at the Columbia University Postdoctoral Research Symposium
- 2018 **Selected Vanderbilt Representative** for AAAS-CASE Workshop in Washington, DC
First Place Poster for Systems Biology (VICB Symposium) (\$200)
- 2017 **First Place Speaker** Award (VICB Symposium) (\$350)
Vanderbilt Nominee for the 68th Lindau Nobel Laureate Conference
- 2015 **Second Place Speaker** at the Vanderbilt Pharmacology Retreat
- 2014 **Alternate** for Fulbright U.S. Student Program Research Grant in Argentina
James T. Gregory Award for Outstanding Research Potential (\$400 stipend)
Summa cum laude
Dean’s List
- 2013 **Presidential Scholar** (Top 13 of the class)
Fellowship: National Science Foundation Grant for undergraduate research experience (REU) at the University of Tennessee, Microbial Ecology
Outstanding Biology Student Award
Dean’s List
- 2012 **Omicron Delta Kappa Sophomore Involvement Award**
Dean’s List
- 2011 **Inductee:** Alpha Lambda Delta Honor Society
Dean’s List

INVITED TALKS

- 2023 **Perry-Hauser, N.A.** Context-dependent requirement of G protein coupling for Latrophilin-2 in target selection of hippocampal axons. Gordon Research Symposium in Molecular Pharmacology. Les Diablerets, Switzerland (June 12th).
- 2022 **Perry-Hauser, N.A.** Ectopic expression of latrophilin-2 in the proximal CA1 disrupts normal axon targeting in a stachel-dependent manner. Adhesion GPCR Workshop, University of Copenhagen. Copenhagen, Denmark (May 8th).
- Perry-Hauser, N.A.** Increasing and Fostering Diversity in Academia. National Postdoctoral Association Webinar (March 15th).
- 2021 **Perry-Hauser, N.A.** The role of adhesion G-protein coupled receptor latrophilins (ADGRLs) in synapse formation and signaling. Leading Edge Symposium. HHMI/Janelia Virtual Platform (June 24th).
- Perry-Hauser, N.A.** G protein signaling downstream of adhesion G protein-coupled receptor latrophilin-2 (ADGRL2). Research in Progress, Physiology Department, Columbia University. New York, NY (April 16th).
- 2019 **Perry-Hauser, N.A.** Arrestin-3: a novel interaction partner for maternal embryonic leucine-zipper kinase. Chemical Biology Association of Students (CBAS) invited seminar. Nashville, TN (April 1st).
- Perry-Hauser, N.A.** Arrestin-3 scaffolding of the JNK3 cascade suggests a mechanism for signal amplification. GRS in Molecular Pharmacology. Ventura, CA (February 9th).
- 2018 **Perry-Hauser, N.A.** Arrestin interaction with mitogen-activated protein kinase cascades. National Institutes of Health. Bethesda, MD (September 12th).
- Perry-Hauser, N.A.** Arrestin-3 scaffolding of the JNK3 cascade suggests a mechanism for signal amplification. G Protein Workshop. Philadelphia, PA (June 18th).
- 2017 **Perry, N.A.** MAPK activation and ATP binding affect arrestin-3 scaffolding of the ASK1-MKK4/7-JNK3 cascade suggesting a mechanistic basis for signal amplification. VICB Student Research Symposium (chosen student speaker) Nashville, TN (August 10th, 2017) (1st Place Award).
- Perry, N.A.** Arrestin Development. The University of Texas at Austin, Austin, TX. Presentation to the laboratory of Dr. Kevin N. Dalby (June 18th-28th).
- Perry, N.A.** MAPK activation and ATP binding affect arrestin-3 scaffolding of the ASK1-MKK4/7-JNK3 cascade suggesting a mechanistic basis for signal amplification. FASEB G Protein-Coupled Receptor Kinases and Arrestins: From Structure to Disease. Saxtons River, VT (June 11-16th, 2017).
- 2016 **Perry, N.A.** Introduction to the Arrestin Proteins. Wittenberg University, Springfield, OH. Guest Lecturer.
- 2015 **Perry, N.A.** Structural basis of arrestin-3-mediated signaling. Vanderbilt Pharmacology Retreat, Nashville, TN (2nd Place Award).

POSTER PRESENTATIONS

- 2023 **Perry-Hauser, N.A.**, Jonathan R. Du Rand, Kuo Hao Lee, Max W. VanDyck, Lei Shi, Jonathan A. Javitch. Functional studies of an adhesion receptor implicated in ADHD and substance use disorder. Celebration of Science at NYSPI. (Feb. 15th).
- 2022 **Perry-Hauser, N.A.**, Max W. VanDyck, Kuo Hao Lee, Lei Shi, and Jonathan A. Javitch. Disentangling autoproteolytic cleavage from tethered agonist-dependent activation of the adhesion receptor ADGRL3. DrGPCR Summit. October 10th-16th.
- 2020 **Perry-Hauser, N.A.**, Signe Mathiasen, Tiago Palmisano, Hannah M. Stoveken, Alex Vizurraga, Dyke P. McEwan, Najeah Okashah, Tobias Langenhan, Asuka Inoue, Nevin A. Lambert, Gregory G. Tall, and Jonathan A. Javitch. G12/13 is activated by acute tethered agonist exposure in the adhesion GPCR ADGRL3. CSHL Molecular Mechanisms of Neuronal Connectivity Virtual Meeting. (Sept. 8th-11th).
- 2020 Zheng, C., Vishnivetskiy, S.A., **Perry, N.A.**, Berndt, S., Gurevich, E.G., Gurevich, V.V. Arrestin-3 interacts with Parkin mutants linked to Parkinson's disease. Experimental Biology. San Diego, CA. (Apr. 4th-7th).
- 2019 **Perry-Hauser, N.A.**, Thomsen, A.R.B. The role of endosomal CC chemokine receptor 7 signaling in metastasis of breast cancer cells. Columbia University Postdoctoral Research Symposium. New York, NY. (Oct. 4th)
- 2019 Vishnivetskiy, S., Elgeti, M., Van Eps, N., **Perry, N.A.**, Hubbell, W.L., and Gurevich, V.V. Divergent conformations of the arrestin-rhodopsin complex in solution. ARVO 2019. Vancouver, BC. (Apr. 29th-May 2nd).
- 2019 **Perry, N.A.**, Kaoud, T.S., Ortega, O.O., Kaya, A.I., Marcus, D.J., Pleinis, J.M., Berndt, S., Chen, Q., Zhan, X.,

- Dalby, K.N., Lopez, C.L., Iverson, T.M., and Gurevich, V.V. Arrestin-3 scaffolding of the JNK3 cascade suggests a mechanism for signal amplification. *GRS Molecular Pharmacology*. Ventura, CA (Feb. 9th-15th).
- 2018 **Perry, N.A.**, Kaoud, T.S., Ortega, O.O., Kaya, A.I., Marcus, D.J., Pleinis, J.M., Berndt, S., Chen, Q., Zhan, X., Dalby, K.N., Lopez, C.L., Iverson, T.M., and Gurevich, V.V. Arrestin-3 scaffolding of the JNK3 cascade suggests a mechanism for signal amplification. *G Protein Workshop*. Philadelphia, PA (June 18th).
- 2017 **Perry, N.A.**, Kaya, A.I., Iverson, T.M., and Gurevich, V.V. Using recombinant protein arrestin-3-JNK3-His to assess arrestin-3 scaffolding of the ASK1-MKK4/7-JNK3 cascade. *GPCR Workshop*. Big Island of Hawaii, HI (December 5th-9th).
- 2017 **Perry, N.A.** Marcus, D.J. Kaoud, T.S., Kaya, A.I., Pleinis, J.M., Chen, Q., Berndt, S., Zhan, X., Dalby, K.N., Iverson, T.M., Gurevich, V.V. MAPK activation and ATP binding affect arrestin-3 scaffolding of the ASK1-MKK4/7-JNK3 cascade suggesting a mechanistic basis for signal amplification. *FASEB G Protein-Coupled Receptor Kinases and Arrestins: From Structure to Disease*. Saxtons River, VT (June 11th-16th).
- 2017 Chen, Q., **Perry, N.A.**, Vishnivetskiy, S.A., Gilbert, N.C., Zhuo, Y., Berndt, S., Sing, P.K., Tholen, J., Ohi, M.D., Gurevich, E.V., Brautigam, C.A., Klug, C.S., Gurevich, V.V., Iverson, T.M. Structural basis of arrestin-3 activation and signaling. *FASEB meeting "G protein-coupled receptor kinases and arrestins: from structure to disease*. Saxtons River, VT (June 11th-16th).
- 2017 Pair, F.S., **Perry, N.A.**, Ge, C., Gurevich, V.V., Gurevich, E.V. Arrestin-3-derived peptides as tools to manipulate JNK signaling in cells. *FASEB meeting "G protein-coupled receptor kinases and arrestins: from structure to disease*. Saxtons River, VT (June 11th-16th).
- 2016 **Perry, N.A.** Collins, B., Kaoud, T.S., Dalby, K.N., Iverson, T.M., and Gurevich, V.V. Mono-functional elements of arrestin-3 interact with extracellular signal-regulated kinase 2 (ERK2). *SBGrid/NE-CAT Phenix Workshop*, Boston, Massachusetts.
- 2016 **Perry, N.A.**, Collins, B., Kaoud, T.S., Dalby, K., Iverson, T.M., and Gurevich, V.V. Mono-functional elements of arrestin-3 interact with extracellular signal-regulated kinase 2 (ERK2). *Vanderbilt Pharmacology Retreat*, Nashville, Tennessee.
- 2016 **Perry, N.A.**, Stoy, H., Chen, Q., Gurevich, E., Zhan, X., Iverson, T.M., and Gurevich, V.V. Ability of peptide Mini-scaffolds to serve as JNK3 activators. *GPCR Keystone Conference*, Keystone, Colorado.
- 2015 **Perry, N.A.**, Stoy, H., Chen, Q., Gurevich, E., Zhan, X., Iverson, T.M., and Gurevich, V.V. Ability of peptide mini-scaffolds to serve as JNK3 activators. 11th International NPY-PYY-PP Meeting, Leipzig, Germany. Abstract: *Neuropeptides* 55:23-24.
- 2015 Chen, Q., Gilbert, N.C., **Perry, N.A.**, Berndt, S., Zhuo Y., Vishnivetskiy, S., Klug, C.S., Gurevich, V.V., Iverson, T.M. The structure of activated arrestin3. 11th International NPY-PYY-PP Meeting, Leipzig, Germany.
- 2014 **Perry, N.A.** Temperature Affects *cspA* Expression in *Pseudomonas fluorescens* HK44. *American Chemical Society, Dayton Section*. Abstract: ACS print publication.
- 2013 **Perry, N.A.** Temperature Affects *cspA* Expression in *Pseudomonas fluorescens* HK44. *University of Tennessee Knoxville, Knoxville, Tennessee*.
- 2013 **Perry, N.A.**, Saba, A.M., and Ward, K.L. The Effect of Human Interaction on the Health of Coral Reefs in San Salvador, Bahamas. *Butler University Undergraduate Research Conference, Indianapolis, Indiana*.
- 2013 **Perry, N.A.** and Coggins, J.N. Effects of ion-exchange resins Amberlyst-15 and Nafion in the Au¹-catalyzed hydration of alkynes. *Wittenberg University, Springfield, Ohio*.
- 2012 **Perry, N.A.**, Saba, A.M., and Ward, K.L. The Effect of Human Interaction on the Health of Coral Reefs in San Salvador, Bahamas. *Wittenberg University, Springfield, Ohio*.
- 2011 **Perry, N.A.**, Tomko, P.M., Hedges, B. Z. and Yoder, J.A. High temperature resistance for success of the red Velvet mites in the landscape. *Kentucky Academy of Science, Murray, Kentucky*. Abstract: KAS On-line publication.
- 2011 Jajack, A.J., **Perry, N.A.**, Hedges, B.Z. and Yoder, J.A. Female beds bugs exhibit reduced ability to maintain Water balance after multiple traumatic insemination events. *Kentucky Academy of Science, Murray, Kentucky*. Abstract: KAS On-line publication.

LISCENSES AND CERTIFICATES

- 2020 Evidence-based Teaching in Science and Engineering (Issued May 2020, Valid Certificate, Columbia University)
- 2020 PH125.1: Data Science: R Basics (Issued March 2020, Valid Certificate ID:

f39b052d730545349c7625bd488e3f01, HarvardX)

2020 The Postdoc Academy: Succeeding as a Postdoc (Issued February 17th, 2020, edX, BUx-PA1x)

2019 INCLTEACH1x: Inclusive Teaching: Supporting All Students in the College Classroom (Issued October 2019, Valid Certificate ID: 2877f6b74f72466090180997561157db, Columbia University)

LEADERSHIP ACTIVITIES

- Fall 2022-Sum 2023 **Topic Editor** for Frontiers in Molecular Biosciences, Research Topic “GPCRs: Signal Transduction”
- Fall 2020-Sum 2021 **Co-chair and founder of the 1st Annual Transatlantic ECI GPCR Symposium (Virtual Platform)**
Raised funds, organized symposium schedule, and elected speakers
- Fall 2020-Fall 2021 **Vice President (CUIMC) for Columbia University Postdoctoral Society**
Sum 2020-Sum 2023 **Founder and Chair of Diversity, Equity, and Inclusion** journal club
Organize and facilitate bi-weekly meetings covering a range of DEI topics
- Spring 2020 **Postdoc Mentor** for WISC-CUPS PhD-Postdoc Mentorship Program
- Fall 2019-Winter 2020 **Networking Committee Chair for Columbia University Postdoctoral Society**
- Spring 2019-
Spring 2023 **Elected co-chair for the 2021 GRS in Molecular Pharmacology (Barga, Italy)**
Responsible for fundraising, reading abstracts, and determining the GRS schedule with Dr. Brian Bender *rescheduled to 2023 in Les Diablerets, Switzerland due to the pandemic
- Spring 2019 **Editor** for Introduction to Systems Biology in Drug Discovery Online Course
- Spring 2019 **Teaching Assistant** for Receptor Theory module
- Spring 2019 **GRS Discussion Leader**
Introduced speakers and coordinated questions for the “GPCR structure and function” session
- Fall 2018-Spring 2019 **TIDLWAVE (Teaching Internship in Design and Learning with Application in Virtual Environment Program) Fellow**
Intern partnered with faculty member Dr. Kendra Oliver working to design materials for an online learning module on Receptor Theory
- Winter 2018-
Sum 2019 **Advisory Committee to the NIH Director**
Member of a working group that reviews the effectiveness of High Risk, High Reward programs in addition to the participation of women and under-represented groups
- Spring 2018 **Teaching Assistant** for Introduction to Structural Biology and Receptor Theory modules
- Fall 2017-Fall 2018 **President** of the Pharmacology Graduate Student Association
Teaching Assistant for the Signaling section of Bioregulation I
- Spring 2017 **Teaching Assistant** for Introduction to Structural Biology and Receptor Theory modules
- Spring 2016 **Vice President of Executive Affairs** for the Pharmacology Graduate Student Association
- Fall 2016 **Mentoring Committee Chair** for Vanderbilt Women in Science and Engineering (VU-WiSE)
Organized mentoring events between graduate and undergraduate students
- Spring 2016 **Teaching Assistant** for Receptor Theory module
- Spring 2016 **Member** of Mortar Board Organizational Study Committee
- Sum 2014 **Speaker** on the Graduate Alumni Panel at the National Mortar Board Conference in Atlanta, Georgia
- Sum 2014 **Guest Speaker** for Kiwanis Club in Mason, Ohio
- Spring 2014 **Baccalaureate Speaker**
Prepared and delivered a keynote speech at the Baccalaureate service before Commencement
- Fall 2013 –
Spring 2014 **Mortar Board Arrow and Mask Chapter**, Wittenberg University
Position: President
Organized service activities and events, led monthly meetings
- Fall 2011 –
Spring 2012 **Beta Beta Beta Biological Honorary Society**, Wittenberg University
Positions: Treasurer, Historian

PROFESSIONAL AFFILIATIONS

2019-present	Associate Member of the Adhesion GPCR Consortium
2019-present	National Postdoctoral Association (NPA)
2019-present	Columbia University Postdoctoral Society (CUPS)
2019-present	New York Academy of Sciences (NYAS)
2016-2018	American Heart Association (AHA)
2015-2019	American Association for the Advancement of Science (AAAS)
2015-2019	American Association of Pharmaceutical Scientists (AAPS)
2015-2019	Pharmacology Graduate Student Association (PhGSA)
2013	Phi Beta Kappa (PBK)
	University Honors Program
	Departmental Honors in Biology
	Omicron Delta Kappa (ODK)
	Mortar Board Arrow and Mask chapter
2012	Beta Beta Beta Biological Honorary Society
2010	Alpha Lambda Delta Honor Society (ALD)

MENTORSHIP³

2022-2023	Elizabeth Pekarskaya , Graduate student, Columbia University, New York, New York
Fall 2022-pres	Jonathan R. Du Rand , Research Assistant, Columbia University, New York, New York
Summer 2022	Max W. VanDyck , Undergraduate Student, Vassar College, Poughkeepsie, New York
Summer 2021	Zafirat Ndancky , Undergraduate Student, Yale University, Columbia University SPURS Program
Spring 2020	Marriah Green , Graduate student, Columbia University, WISC-CUPS PhD-Postdoc Mentorship Program
Summer 2018	Mariana Lopes , Undergraduate student, Federal University of Health Sciences of Porto Alegre, Brazil
Summer 2017-	Andrew Magnus , Undergraduate student, Vanderbilt University, Nashville, Tennessee
Summer 2018	Kevin Fialkowski , Undergraduate student, Vanderbilt University, Nashville, Tennessee
	Luwi Shamabo , Undergraduate student, Vanderbilt University, Nashville, Tennessee
Winter 2016	Nicole Kendrick , Graduate student in the Interdisciplinary Graduate Program for the Biomedical Sciences, Vanderbilt University, Nashville, Tennessee
Fall 2016	Bridget Collins , Medical Student Training Program, Vanderbilt University, Nashville, Tennessee
Fall 2015	Jonas Tholen , DAAD RISE undergraduate scholar, University of Applied Sciences Emden, Leer, Emden, Germany
Summer 2015	Susanne Prokop , Vanderbilt Short-Term Fellowship Program, Semmelweis University, Hungary

SELECTED VOLUNTEER/SERVICE

Winter 2021	Armory Patient Vaccination Program , completed 16 hours of service for the vaccination effort
Fall 2020	First time poll worker , named Citizen of the Year by the <i>National Conference on Citizenship</i>
Spring 2020	Review Committee for the Freeman and Fox Most Improved Chapter Award , Mortar Board National College Senior Honor Society
Winter 2020	Columbia Researchers Against COVID19 (CRAC) Team Volunteer Coordinated with Columbia administrators to identify and address urgent needs
Spring 2019	Presenter at recruitment events for potential students in the IGP and QCB programs at Vanderbilt
Spring 2018	Guest Speaker at a P.E.O. meeting for the AU chapter in Vonore, Tennessee Gave a brief introduction to academia for 30-40 chapter members
Spring 2017	Mock Reviewer for Undergraduate Grant Submission Reviewed and provided feedback for undergraduate mock grant submissions from Wittenberg University
Spring 2017	Pharmacology Forum Planning Committee Chose speakers and contacted alumni for the annual Pharmacology Department forum
Fall 2016	Pharmacology Retreat Planning Committee

³ Underlined names are underrepresented minority students

- Fall 2015- Helped organize the annual pharmacology retreat for faculty and students
Mortar Board Organizational Study Committee
- Spring 2016 Reviewed the financial standing of Mortar Board and helped improve recruitment of new members
- Spring 2016 **Pen Pals with a Purpose**
Wrote letters with a sixth-grade student as outreach
- Winter 2014 **Mortar Board Alumni Achievement Award Selection Committee**
Reviewed nominations for the prestigious Alumni Achievement Award given at the Mortar Board ` National Conference in 2015
- Spring 2014 **Baccalaureate**
Assisted in the planning of the Baccalaureate service at Wittenberg University

REFERENCES

Graduate Mentors

1. **Dr. Vsevolod V. Gurevich**, Professor, Department of Pharmacology, Vanderbilt University, Nashville, TN 37235, 615-322-7070 (office)
2. **Dr. Tina M. Iverson**, Professor, Department of Pharmacology, Vanderbilt University, Nashville, TN 37235, 615-322-7817 (lab)

Postdoctoral Mentor

3. **Dr. Jonathan A. Javitch**, Lieber Professor of Experimental Therapeutics (in Psychiatry) and Professor of Pharmacology, Columbia University, New York, NY 10032, 914-484-8668 (persona

