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Anne M. Brown, Ph.D.

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EDUCATION

Ph.D., Biochemistry
Graduate Professional Certificates:
1. *Preparing the Future Professoriate*
2. *Gerontology*
3. *Research in Translational Medicine*

Virginia Polytechnic Institute and State University
May 2016

B.S., Biochemistry, Physics (cum laude)

Roanoke College
May 2010

EMPLOYMENT HISTORY

Assistant Professor, Science Informatics Consultant and Health Analytics Coordinator

Research and Informatics,
University Libraries, Virginia Tech

06/2017 –
Present

Research focus: My research lab is focused on studying amyloid aggregation across species and diseases, to determine biological linkages across these protein structures at the atomistic level, using cutting-edge simulation techniques and computational, data-rich method. We use molecular dynamics (MD) simulations and computer aided drug design (CADD), targeting proteins involved in neurodegenerative disease and working to better understand protein structure-function relationships. We also extensively collaborate on the utilization of computational thinking, data science, and discipline-specific computational tools into their research labs and classrooms. In brief, what we can explore at the atomistic level via simulations can lead us to greater insight and connections to cellular level phenomenon, and our group seeks to have long-term impact and add into the translational science approach of multiscale modeling of amyloids in both functional and disease states. I am also involved in the training, pedagogical impact research, and mentorship of undergraduate research students in these areas.

Affiliate Faculty, Academy of Integrated Sciences

College of Science, Virginia Tech

06/2020 –
Present

Adjunct Faculty, Department of Biochemistry

College of Science, Virginia Tech

11/2016 –
Present

Lecturer, Data and Informatics Consultant

Research and Informatics, University Libraries, Virginia Tech

06/2016-06/2017

HONORS, AWARDS, AND OTHER NOTABLE RECOGNITIONS

2022	Selected Expert, Biomedical Data Science Innovation Lab at the University of Virginia [LINK] ~30 competitively selected, early-career biomedical and data science investigators that developed new and bold approaches to address challenging biomedical questions for topics that could benefit from a fresh or divergent quantitative perspective.

2022	Selected Expert, "Making Learning Inclusive and Effective for All", Banbury Center at Cold Spring Harbor Labs. [LINK] Selected participant in small think tank-style conference, sponsored by NSF (DRL#2027025), that developed implementable solutions to improve short-format training, making it more effective and inclusive for all.
2022	Chief Innovation Officer, BEAM Diagnostics, Inc.
2021	Virginia Tech Department of Biochemistry Outstanding Service Award
2020	Virginia Tech Office of First-Year Experiences Outstanding First-Year Student Advocate
2020	Council of Undergraduate Research (CUR) Biology Division Mentor Award [national award - LINK]
2019	Virginia Tech Transdisciplinary Faculty Fellow [LINK]
2019	Faculty Scholar, Virginia Tech Academy of Graduate Teaching Excellence [LINK]
2019	J. Shelton Horsley Research Award from Virginia Academy of Science [LINK]
2019	Virginia Tech Outstanding Undergraduate Research Faculty Mentor Award [LINK]
2019	Virginia Tech Scholarship of Teaching and Learning Award [VT News]
2019	Biophysical Society Travel Award [LINK]
2019-2022	Co-founder and President, DESA Analytics, LTD. A healthcare analytics app platform that assesses cognitive (e.g., Alzheimer's disease), mental, and behavioral health in real-time environments. Invested in and partnered with by local healthcare system, Carilion Clinic. Successful acquisition in 2022.
2018	Roanoke-Blacksburg Technology Council (RBTC) Entrepreneur of the Year (nominee)
2017, 2018	Virginia Tech Favorite Faculty (2018 – Civility Award Winner) [LINK]
2016	North American Colleges and Teachers of Agriculture (NACTA) Graduate Student Teaching Award of Merit [LINK]
2015	Virginia Tech Illuminator Award [VT News]
2015	Associate, VT Academy of Graduate Teaching Assistant Excellence [LINK]
2015	Virginia Tech Graduate School Outstanding Graduate Student Service Excellence Award [VT News] [LINK]
2015	Kamal M. Abdo Memorial Endowment Travel Award
2014	VT Center for Gerontology S.J. Ritchey Award for research focuses in the area of aging [LINK]
2014	Virginia Tech Citizen Scholar Award [LINK]
2013-2016	Virginia Tech CALS Graduate Teaching Scholar Fellowship [LINK]
2013	Best Score Poster, VT 29th Annual Graduate Student Research Symposium

GRANTS

Year	Agency/Call and Project	Role	Amount
2022-2023	Commonwealth Cyber Initiative (CCI) Cybersecurity Workforce Development [LINK] Title: Pathways for Cyberbiosecurity Workforce Preparation: Integrating Insights from Both Cybersecurity and Biosecurity PI: Eric Kaufman (Virginia Tech, Agriculture, Leadership, and Community Education (ALCE)) in partnership with Virginia Western Community College	Co-PI	$35,0000.00
2022-2023	VT University Libraries Collaborative Research Grant Program Title: Elucidating the molecular mechanism of bacterial-mediated hijacking of host protein turnover PI: Daniel Capelluto (Virginia Tech, Biology)	Co-PI	$10,000.00
2022-2023	VT University Libraries Collaborative Research Grant Program Title: DS4ES: Implementing and Assessing the Introduction of Data Science Fundamentals in Environmental Sciences Courses PI: Kang Xia (Virginia Tech, Environmental Science)	Co-PI	$5,000.00
2022-2023	VT University Libraries Collaborative Research Grant Program Title: Mapping the Landscape of CyberBioSecurity Education PI: Eric Kaufman (Virginia Tech, Agriculture, Leadership, and Community Education (ALCE))	Co-PI	$5,000.00
2022-2023	VT College of Science Dean's Discovery Fund Title: Pioneering new routes for antibiotic development: specializing and rationally pairing drugs PI: Andrew Lowell (Virginia Tech, Chemistry)	Co-PI	$38,069.00
2022-2024	VT ICTAS Junior Faculty Award Title: Accelerating Late-Stage Drug Functionalization for RNA Viruses	PI	$80,000.00
2021-2022	CeZAP (Center for Emerging, Zoonotic, and Arthropod-borne Pathogens) Interdisciplinary Team-Building Pilot Grant Program	Co-PI	$20,000.00

Title: Pioneering new routes for antibiotic development: Using computational modeling and medicinal chemistry to reconfigure chemotherapeutics as selective antibiotics

PI: Andrew Lowell (Virginia Tech, Chemistry)

2021-2022	CeZAP (Center for Emerging, Zoonotic, and Arthropod-borne Pathogens) Interdisciplinary Team-Building Pilot Grant Program	Co-PI	$20,000.00

Title: Molecularly barcoded SARS-CoV-2 to probe in vivo evolutionary dynamics

PI: James Weger-Lucarelli (Virginia Tech, VetMed)

2021-2022	VT College of Science Dean's Discovery Fund	Co-PI	$20,000.00

Title: Experimentally and Computationally Establishing C. difficile PilB for Antivirulence Drug Discovery

PI: Zhaomin Yang (Virginia Tech, Biology)

2021-2022	CCI 2021 Scalable Pilot Experiential Learning Programs	Co-PI	$114,510.00

Title: Curating Industry Partnerships Through Experiential Learning for Workforce Development In Cyber Biosecurity

PI: Tiffany Drape (Virginia Tech, ALCE)

2021-2022	Virginia Tech Data & Decisions Destination Area RFC Award	PI	$10,000.00

Title: A Hybrid Evolutionary Algorithm to Accelerate Late-Stage Functionalization: Validation and Improving Drug Leads Utilizing SARS-CoV-2 M^{pro} as a Target.

2020-2021	Virginia Catalyst [LINK]	VT Lead PI	$800,000.00

Title: Protein Painting Of PD1/PDL1 for the Discovery of New Immune Checkpoint Inhibitors for the Treatment of Lung Cancer and Brain Metastasis

PI: Mikell Paige (George Mason University, Dept. of Chemistry)

2020-2022	U.S. Department of Agriculture, National Institute of Food and Agriculture (NIFA), Women and Minorities in Science, Technology, Engineering, and Mathematics Fields (WAMS) Grants Program [LINK]	Senior Personnel	$100,000.00

Title: Initiating the rural cyberbiosecurity workforce pipeline through empowering agricultural educators and supporting middle school girls

PI: Hannah Scherer (Virginia Tech, ALCE)

2020	Virginia Tech Provost Office Transdisciplinary Faculty Fellow [LINK]	PI	$9,000.00
	Title: Research and Data Literacy Module Design and Implementation		
2019-2023	VT STEM Pathways Minors for Non-STEM Students Grant [LINK]	PI	$19,700.00
	Title: Creation of Pathways Research and Data Practices Minor		
2019-2020	VCOM REAP (Research Eureka Accelerator Program)	Co-PI	$50,000.00
	Title: OR2T7: A prognostic marker and a potential therapeutic target for glioblastoma		
	PI: Ramamoorthy Anandakrishnan (Virginia College of Osteopathic Medicine)		
2019-2020	ICAT Major SEAD Grant (internal) [LINK]	Co-PI	$20,000.00
	Title: City Elections Project		
	PI: LaDale Winling (Virginia Tech, History)		
2019-2020	ICAT Mini SEAD Grant (internal) [LINK]	Co-PI	$3,000.00
	Title: Building BERT: A Brief Emotion Regulation Training Program		
	PI: Lee Cooper (Psychology, Virginia Tech)		
2019	ICAT Mini SEAD Grant (internal) [LINK]	Co-PI	$3,000.00
	Title: Visualizing Acid-Base Chemistry [LINK to project summary]		
	PI: Andrea Dietrich (Virginia Tech, Civil and Environmental Engineering)		
2019	Association of College and Research Libraries (ACRL) Academic Library Research Impact Grant [LINK]	Co-PI	$3,000.00
	Title: How Libraries Show Impact: Creating an Adaptable Model for Tracking, Assessing, and Celebrating Student Success		
	PI: Amanda MacDonald, Virginia Tech, University Libraries		
2019	Undergraduate Research Faculty Grant Program (VT Office of Undergraduate Research, internal) [LINK]	PI	$7,000.00

Title: DataBridge: An Interdisciplinary, Data-Centric Experiential
Program for Undergraduate Students

			TOTAL:
			$1,372,279.00

Pending	*Exploiting connexin43 interaction with tubulin in glioblastoma stem cell plasticity*	*Co-PI*	*American Cancer Society (ACS)*
	Identifying SARS-CoV-2 genetic determinants of host range, infection, and replication	*Co-PI*	*NIH NIAID*
	Decoupling growth and phosphorus signaling to increase switchgrass biomass yield	*Co-PI*	*DOE*
	CyberBioSecurity through Leadership-as-Practice Development: Empirical Pedagogy for Boundary-Crossing Graduate Education	*Co-PI*	*NSF IGE*
	Flavonoids and the plant circadian clock: Advancing understanding of specialized metabolism	*Co-PI*	*NSF MCB*
In Preparation	*CAREER: Unraveling Biophysical Commonalities of Functional and Cytotoxic Amyloid Proteins Using MD Simulations*	*PI*	*NSF CAREER*

PEER-REVIEWED PUBLICATIONS   RELEVANT LINKS: Google Scholar, PubMed

1. Roesch, F.; Cereghino, C.; Carrau, L.; Hardy, A.; Ribeiro-Filho, H.; Lacritick, A. H.; Koh, C.; Marano, J.; Bates, T.; Rai, P.; Chuong, C.; Akter, S.; Vallet, T.; Blanc, H.; *Elliot, T.; **Brown, A. M.**; Michalak, P.; LeRoith, T.; Bloom, J.; Marques, R. E.; Saleh, M.-C.; Vignuzzi, M.; Weger-Lucarelli, J. (2022). The E2 glycoprotein holds key residues for Mayaro virus adaptation to the urban *Aedes aegypti* mosquito. [bioRxiv]

2. Pashikanti, S., Foster, D.J., Kharel, Y., **Brown, A.M.**, Bevan, D.R., Lynch, K.R. and Santos, W.L. (2022). "Sphingosine Kinase 2 Inhibitors: Rigid Aliphatic Tail Derivatives Deliver Potent and Selective Analogues." *ACS Bio & Med Chem Au*. In Press. [DOI]

3. Gatto, A.J., *Elliott, T.J., Briganti, J.S., Stamper, M.J., Porter, N.D., **Brown, A.M.**, Harden, S.M., Cooper, L.D. and Dunsmore, J.C. (2022). "Development and Feasibility of an Online Brief Emotion Regulation Training (BERT) Program for Emerging Adults." *Front. Public Health*, 10. [DOI]

4. King, K.M., Bevan, D.R., and **Brown, A.M.**# (2022). "Molecular Dynamics Simulations Indicate Aromaticity as a Key Factor in Inhibition of $IAPP_{(20-29)}$ Aggregation." *ACS Chem. Neur.* 13, 11, 1615–1626. [DOI]

5. Sharp, A.K., Newman, D., Libonate, G., Stern, M.B., Bevan, D.R., Anandakrishnan, R., and **Brown, A.M.**# (2022). Biophysical insights into OR2T7: Investigation of a potential prognostic marker for glioblastoma. *Biophys. J.* Online Ready. [DOI]

6. *Kawecki, G., King, K.M., *Cramer, N., Bevan, D.R. and **Brown, A.M.**# (2022). Simulations of Cross-Amyloid Aggregation of Amyloid-β and Islet Amyloid Polypeptide Fragments. *Biophys. J.* Online Ready. [DOI]

7. King, K.M., Sharp, A.K., Davidson, D.S., Lemkul, J.A., and **Brown, A.M.**# (2021). Impact of Electronic Polarization on Preformed, β-Strand Rich Homogenous and Heterogeneous Amyloid Oligomers. *J. Comp. Biophys. Chem.* 21(4) pp. 449-460. [DOI]

8. Kang, L., He, G., Sharp, A.K., Wang, X., **Brown, A.M.**, Michalak, P. and Weger-Lucarelli, J., 2021. A selective sweep in the Spike gene has driven SARS-CoV-2 human adaptation. *Cell*, 184(17), pp.4392-4400. [DOI]

9. Piai, A., Fu, Qingshan, F., Sharp, A.K., Bighi, B., **Brown, A.M.**#, and Chou, J.J.# NMR Model of the Entire Membrane-Interacting Region of the HIV-1 Fusion Protein and Its Perturbation of Membrane Morphology. *J. Am. Chem. Soc.* 43 (17), 6609-6615. [DOI]

10. Wu, L., Velander, P., **Brown, A.M.**, Wang, Y., Liu, D., Bevan, D.R., Zhang, S. and Xu, B. (2021). Rosmarinic Acid Potently Detoxifies Amylin Amyloid and Ameliorates Diabetic Pathology in a Transgenic Rat Model of Type 2 Diabetes. *ACS Pharmacol. Transl. Sci.*, 4(4), pp.1322-1337. [DOI]

11. Wind, L.L., Briganti, J.S., **Brown, A.M.**, Neher, T.P., Davis, M.F., Durso, L.M., *Spicer, T., Lansing, S. (2021) Finding What Is Inaccessible: Antimicrobial Resistance Language Use among the One Health Domains. *Antibiotics.* 10, 385. [DOI]

12. Congdon, M., Fritzemeier, R. G., Kharel, Y., **Brown, A. M.**, Serbulea, V., Bevan, D. R., Lynch, K. R., & Santos, W. L. (2021). Probing the substitution pattern of indole-based scaffold reveals potent and selective sphingosine kinase 2 inhibitors. *Eur J Med Chem.* 212, 113121. [DOI]

13. Gaji, R. Y., Sharp, A. K., and **Brown, A. M.** (2021). Protein kinases in Toxoplasma gondii. *Int J Parasitol.* 51(6), pp. 415-429. [DOI]

14. Dailing, A., Mitchell, K., Vuong, N., Lee, K. H., Joshi, R., Espina, V., Haymond Still, A., *Gottschalk, C. J., **Brown, A. M.**, Paige, M., Liotta, L. A., and Luchini, A. (2021). Characterization and Validation of Arg286 Residue of IL-1RAcP as a Potential Drug Target for Osteoarthritis. *Front Chem.* 8, 601477. [DOI]

15. Li H., Sibley C.D., Kharel Y., Huang T., **Brown A.M.**, Wonilowicz L.G., Bevan D.R., Lynch K.R., and Santos W.L. (2021) Lipophilic tail modifications of 2-(hydroxymethyl)pyrrolidine scaffold reveal dual sphingosine kinase 1 and 2 inhibitors. *Bioorg Med Chem.* 30, 115941. [DOI]

16. Briganti, J.S., and **Brown, A.M.**# (2020) Implementing, Strengthening, and Iterating Digital-First Undergraduate Research Operational Procedures during Major Disruptions. *SPUR.* 4(2), 62-63. [DOI]

17. Kim, C., **Brown, A.M.**, Grove, T., and Etzkorn F. (2021) Designed Leucine-Rich Repeat Proteins Bind Muramyl Dipeptide with High Affinity. *Protein Sci.* 30, 804-817. [DOI]

18. Sharp, A. K., *Gottschalk, C.J., and **Brown, A. M.**# (2020) Utilization of Computational Techniques and Tools to Introduce or Reinforce Knowledge of Biochemistry and Protein Structure-Function Relationships, *Biochem Mol Biol Educ.* 48, 662-664. [DOI]

19. Briganti, J.S., Ogier, A., and **Brown, A.M.**# (2020) Piloting a Community of Student Data Consultants that Supports and Enhances Research Data Services. *Int. J. Dig. Cur.* 15(1). [DOI]

20. Song, W., *Gottschalk, C.J., Tang, T.-X., Biscardi, A., Ellena, J.F., Finkielstein, C.V., **Brown, A.M.**, and Capelluto, D. G. S. (2020) Structural, *in silico*, and functional analysis of a Disabled-2-derived peptide for recognition of sulfatides, *Sci Rep.* 10, 13520. [DOI]

21. Adepoju, O., Williams, S.P., Craige, B., Cridland, C.A., Sharp, A.K., **Brown, A.M.**, Land, E., Perera, I.Y., Mena, D., Sobrado, P., and Gillaspy, G.E. (2019) Inositol Trisphosphate Kinase and Diphosphoinositol Pentakisphosphate Kinase Enzymes Constitute the Inositol Pyrophosphate Synthesis Pathway in Plants, bioRxiv, 72491. [bioRxiv]

22. Sibley, C. D., Morris, E. A., Kharel, Y., **Brown, A.M.**, Huang, T., Bevan, D. R., Lynch, K. R., and Santos, W. L. (2020) Discovery of a Small Side Cavity in Sphingosine Kinase 2 that Enhances Inhibitor Potency and Selectivity, *J. Med. Chem.* 63, 1178-1198. [DOI] (Journal Cover Art for February 2020)

23. Hilu, K. W., Friend, S. A., Vallanadu, V., **Brown, A. M.**, Hollingsworth, L. R. t., and Bevan, D. R. (2019) Molecular evolution of genes encoding allergen proteins in the peanuts genus Arachis: Structural and functional implications, *PLoS One.* 14, e0222440. [DOI]

24. Salsbury, A.M., **Brown, A.M.**, and Lemkul, J.A. (2019) Integrating Scientific Programming in Communities of Practice for Students in the Life Sciences, In Proceedings of the Practice and Experience in Advanced Research Computing (PEARC) on Rise of the Machines (learning), p Article 83, Association for Computing Machinery, Chicago, IL, USA. [DOI]

25. *Worrell, B.L., **Brown, A.M.**, Santos, W.L., and Bevan, D.R. (2019) "In Silico Characterization of Structural Distinctions between Isoforms of Human and Mouse Sphingosine Kinases for Accelerating Drug Discovery", *J. Chem. Inf. Model.* 59, 2339-2351. [DOI]

26. Shrestha, M., Compton, K. K., Mancl, J., Webb, B., **Brown, A.M.**, Scharf, B., and Schubot, F. D. (2018) "Structure of the Sensory Domain of McpX from *Sinorhizobium meliloti* the First Known Bacterial Chemotactic Sensor for Quaternary Ammonium Compounds." *Biochem. J.* BCJ20180769. [DOI]

27. Liu, J., Zou, X., Gotoh, T., **Brown, A.M.**, Jiang, L., Wisdom, E. L., Kim, J. K., and Finkielstein, C. V. (2018) "Distinct Control of PERIOD2 Degradation and Circadian Rhythms by the Oncoprotein and Ubiquitin Ligase MDM2." *Science Signaling.* 11 (556), eaau0715. [DOI] [VT News Story]

28. *Hollingsworth, L.R., Lemkul, J.A., Bevan, D.R., and **Brown, A.M.**[#] (2018) "HIV-1 Env Transmembrane Domain Dynamics Are Modulated by Lipid, Water, and Ion Interactions." *Biophys. J.* 115(1), 84-94. [DOI] [VT News Story] [#]corresponding author

29. Ogier, A., **Brown, A.M.**, Petters, J., Hilal, A., Porter, N. (2018) "Enhancing Collaboration Across the Research Ecosystem: Using Libraries as Hubs for Discipline-Specific Data Experts." Proceedings of the Practice and Experience on Advanced Research Computing (PEARC18) Conference. Pittsburg, PA. 3219126: ACM, 1-6. [DOI]

30. *Ricketts, H.K, Salsbury, A.M., Bevan, D.R., and **Brown, A.M.**[#] (2018) "Using Immersive Visualization Environments to Engage Students in Hands-On Learning." Proceedings of the Practice and Experience on Advanced Research Computing (PEARC18) Conference. Pittsburg, PA. 3229274: ACM, 1-5. [DOI] [VT News Story] Best Student Paper Award.

31. Davidson, D.S., **Brown, A.M**., and Lemkul, J.A. (2018) "Insights into Stabilizing Forces in Amyloid Fibrils of Differing Sizes from Polarizable Molecular Dynamics Simulations." *J. Mol. Biol.* 430(20), 3819-3834. F1000 recommended paper. [DOI] [VT News Story]

32. *Hollingsworth, L.R., **Brown, A.M.**, Gandour, R.D., and Bevan, D.R. (2018) "Computational study of HIV gp120 as a target for polyanionic entry inhibitors: Exploiting the V3 loop region". *PLOS One.* 13(1). [DOI]

33.   **Brown, A.M.**, and Bevan, D.R. (2017) "Introducing Protein 3-D Visualization Software to Freshman Undergraduate Students: Making Connections and Building Skills." Proceedings of the Practice and Experience in Advanced Research Computing (PEARC17) Conference. New Orleans, LA. 3093347: ACM, 1-6. [DOI]

34.   *Hollingsworth, L.R., **Brown, A.M.**, and Bevan, D.R. (2017) "Utilizing Computational Techniques to Accelerate Discovery in Peanut Allergenicity: A Case Study." Proceedings of the Practice and Experience in Advanced Research Computing (PEARC17) Conference. New Orleans, USA. 3104154: ACM, 1-6. [DOI]

35.   *Turner, S.G., **Brown, A.M.**, and Jarrott, S.E. (2017) "For Students, By Students: Service-Learner Involvement in the Development of Visiting Kits to Facilitate Student Interactions with Old Adults." *J. Intergener. Relatsh.* 15(2), 181-187. [DOI]

36.   Childress, E.S, Kharel, Y., **Brown, A.M.**, Bevan, D.R., Lynch, K.R., and Santos, W.L. (2017) "Transforming Sphingosine Kinase 1 Inhibitors into Dual and Sphingosine Kinase 2 Selective Inhibitors: Design, Synthesis, and In Vivo Activity." *J. Med. Chem.* 60, 3933-3957. [DOI] F1000 recommended paper.

37.   **Brown, A.M.**, and Bevan, D.R. (2017) "Influence of Sequence and Lipid Type on Membrane Perturbation by Human and Rat Amyloid β-Peptide (1-42)." *Arch. Biochem. Biophys.* 614, 1-13. [DOI]

38.   **Brown, A.M.**, Polys, N., Bevan, D., and Mohammed, A. (2016) "Insights into Alzheimer's Disease: Molecular Dynamics (MD) Simulations of Peptide-Membrane Interactions." Proceedings of the XSEDE16 Conference on Diversity, Big Data, and Science at Scale. Miami, USA. ACM, 1-3. [DOI]

39.   **Brown, A.M.**, and Bevan, D.R. (2016) "Molecular Dynamics Simulations of Amyloid β-Peptide (1-42): Tetramer Formation and Membrane Interactions. *Biophys. J.* 111(5), 937-949. [DOI]

40.   **Brown, A.M.**, Lewis, S.N., and Bevan, D.R. (2016) "Development of a Structure Undergraduate Research Experience: Framework and Implications." *Biochem. Mol. Biol. Educ.* 44(5), 463-474. [DOI]

41.   Miller, D.V., **Brown, A.M.**, Xu, H., Bevan, D.R., and White, R.H. (2016) "Purine salvage in *Methanocaldococcus jannaschii:* Elucidating the role of a conserved cysteine in adenine deaminase." *Proteins.* 84(6), 828-840. [DOI]

42.   Congdon, M.D., Kharel, Y., **Brown, A.M.**, Lewis, S.N., Thorpe, S.B., Bevan, D.R., Lynch, K.R., and Santos, W. L. (2016) "Structure-activity relationship studies and molecular modeling of naphthalene-based sphingosine kinase 2 inhibitors." *J. Med. Chem. Letters.* 7(3), 229-234. [DOI] (Journal Cover Art for March 2016)

43.   **Brown, A.M.**, Lemkul, J. A., Schaum, N., and Bevan, D. R. (2014) "Simulations of monomeric amyloid β-peptide (1–40) with varying solution conditions and oxidation state of Met35: Implications for aggregation." *Arch. Biochem. Biophys.* 545, 44-52. [DOI]

44.   *Gerben, S. R., Lemkul, J. A., **Brown, A.M.**, and Bevan, D. R. (2013) "Comparing atomistic molecular mechanics force fields for a difficult target: a case study on the Alzheimer's amyloid β-peptide." *J. Biomol. Struct. Dyn.* 32(11), 1-16. [DOI]

45.   **Brown, A.M.**, Hoopes, S.L., White, R.H., and Sarisky, C.A. (2011) "Purine Biosynthesis in Archaea: Variations on a Theme." *Biol Direct.* 14(6), 63. [DOI]

46.   Trinkle, D., Brock, D.P., **Brown, A.M.** (2011) "Mild Memory Loss and Receptivity to Gaming Device Assessments." *Clin Geriatr.* 19(1), 16.

* indicates undergraduate research mentee
 # indicates corresponding author

BOOK CHAPTERS

1.   Lewis, S.N, **Brown, A.M,** and MacDonald, A.B. (2020) "Open Pedagogical Practices to Train Undergraduates in the Research Process: A Case Study in Course Design and Co-Teaching Strategies." *Open Pedagogy Approaches: Faculty, Library, and Student Collaborations*. MILNE Publishing. [LINK] July 2020.

2.   **Brown, A.M.** (2022) "Teaching, Training, and Mentoring Students in Research Practices Inside and Outside the Classroom." *Teaching in The University: Learning from the Experiences Of Grad Students And Early Career Faculty*. Virginia Tech Publishing. [LINK]

3.   Chen, D., Briganti, J.S., and **Brown, A.M.** (2022) "Teaching Data Literacy Skills and Building a Community of Practice Through University Libraries". *Teaching Research Data Management*. ALA Editions. [LINK]

4.   Briganti, J.S., and **Brown, A.M.** (2022) "Leverage Undergraduate Student Researchers to Deliver Text Data Mining Services to Library Users". *Text Mining for Information Professionals An Uncharted Territory*. Springer. [LINK]

5.   Lewis, S.N. and **Brown, A.M.** (Expected 2022) "Abstracts as Puzzles: A Teaching Tool for Research Summarization" *Teaching Science Students to Communicate: A Practical Guide*. Springer. In production.

6.   MacDonald, A., **Brown, A.M.**, and Zaldivar, M. (Expected 2023). Connected, Integrated, Extended: How Digital Credentialing and Programmatic Design Enhanced and Empowered a Co-Curricular Research Skills Program. In M.K. Hensley, S. Davis-Kahl, & H. Fargo (Eds.) *Undergraduate Research and the Academic Librarian: Case Studies & Best Practices. Volume II*. Association of College and Research Libraries. In production.

INVITED/ACCEPTED PRESENTATIONS AND WORKSHOPS

All presentations/workshops/webinars prepared and delivered by A.M. Brown individually or as a team. Lead or substantially contributed to abstract submission and editing, created content, presented work, and networked/travelled these events, seminars, and workshops. All works were peer-reviewed or invited.

1.   **Brown, A.M.** "Women in Data Science Careers Panel". Panelist. Woman in Data Science Conference (WiDS). April 2022.

2.   **Brown, A.M.** "Unraveling Conformational States of Functional and Cytotoxic Amyloid Proteins Using MD Simulations to Enhance Drug Discovery". Virginia Tech Department of Biochemistry. April 2022.

3.   **Brown, A.M.** and Lowell, A.L. "Overcoming AMR Through Antibiotic Redesign: Coupling Computational and Experimental Science". CeZAP (Center for Emerging, Zoonotic, and Arthropod-borne Pathogens) Distinguished Speaker Seminar Series in Infectious Diseases. February 2022.

4.   **Brown, A.M.** "How Does HPC Help with Your Scientific Research". Virginia Women in HPC program (VA-WHPC). January 2022.

5.   **Brown, A.M.** "Examining Amyloid Morphologies and Advancing Flavonoid-Based Drug Discovery Using Molecular Dynamics Simulations". University of Texas El Paso Department of Chemistry Seminar Series. November 2021.

6.   **Brown, A.M.**, & MacDonald, A. "Open Pedagogical Practices to Train Undergraduate Students in the Research Process: Why Open Pedagogy Fosters Student Learning When Teaching Research." Panel presentation at the VIVA Open! Advancing Open Educational Practice Workshop Series. November 2021.

7.   **Brown, A.M.** "Examining Amyloid Morphologies and Advancing Flavonoid-Based Drug Discovery Using Molecular Dynamics Simulations". William and Mary Department of Biology Seminar Series. October 2021.

8.   **Brown, A.M.** "Simulating Protein Aggregation and Protein-Membrane Environments: Insights Gained from Amyloids and Glycoproteins". Virginia Commonwealth University Medicinal Chemistry Department Seminar. October 2021.

9.   MacDonald, A., & **Brown, A.M.** "How Libraries Show Impact: Creating an Adaptable Model for Tracking, Assessing, And Celebrating Student Success". ACRL Value of Academic Libraries Impact Grant Presentations – Part II. May 2021.

10.   King, K.M. and **Brown, A.M.** "*In Silico* Discovery and Design of Drug Leads for SARS-Cov-2 Main Protease (Mpro) Using a Hybrid Evolutionary Algorithm Approach." 261st American Chemical Society National Meeting. Live Virtual Oral Presentation. April 2021.

11.   Briganti, J.S., Sharp, A.K., and **Brown, A.M.** "Remote and In-Person Model for Training, Scaling, and Empowering Students in Research in Modeling, Informatics, and Data Science". 261st American Chemical Society National Meeting. Live Virtual Oral Presentation. April 2021.

12.   Gottschalk, C.J and **Brown, A.M.** "Incorporating Biochemical Knowledge and an Accessible, Data-Driven Approach to a First-Year Research Experience Course to Improve STEM Retention". 261st American Chemical Society National Meeting. Live Virtual Oral Presentation. April 2021.

13.   Sharp, A.K. and **Brown, A.M.** "Strategies for Enhancing Remote Biophysical Education: Development of A Module Based Training Series". Biophysical Society 65th Annual Meeting. Virtual. February 2021. [Abstract]

14.   Lewis, S.N., **Brown, A.M.**, and MacDonald, A. "Researcher Identity: Active learning Pedagogy for STEM Learners". AAC&U 2020 Virtual Conference on Transforming STEM Higher Education: This Changes Everything! Virtual. November 2020. [Abstract]

15.   **Brown, A.M.** "Using Open Science Framework (OSF) and GitHub to Promote Student Training and Research Transparency." Open Virginia Advisory Committee's Virtual Event Series
Fall 2020 Virtual Events on Open Education: Student Success and Faculty Autonomy. Virtual. October 2020. [Video and Slides]

16.   Briganti, J. and **Brown, A.M.** "Utilizing Google Suite Applications to Store, Query, and Deliver Custom Generated Database Discovery Tools." Southeast Data Librarian Symposium 2020. Virtual. September 2020. [Abstract]

17.   Porter, N., Ewing, T., and **Brown, A.M.** "Analyst, Creator, Consultant: Models of Experiential Data Learning". ICPSR Data Fair 2020: Data in Real Life. Virtual. September 2020. [Slides]

18.   **Brown, A.M.** (Panelist) AI in Healthcare. Dulles Regional Chamber of Commerce Zoom Webinar. June 2020.

19.   **Brown, A.M.** "Use of In Silico Tools and Techniques to Interrogate the Mechanisms by which Amyloid-Beta and its Toxic Oligomers Operate" Science Studio. April 14, 2020. [Recording]

20.   Cramer, N., Kawecki, G., Barto, D., Bevan, D.R., and **Brown A.M**. "Insight into Amyloid Interactions and Aggregation Processes: Molecular Dynamics Simulations of Amyloid Fragments and Full-Length Oligomers." Abstract accepted for oral presentation at the 259th American Chemical Society National Meeting. Philadelphia, PA (2020). This meeting was cancelled due to public health concerns related to COVID-19 but was held virtually, with slides published. [Slides]

21.   Briganti, J.S. and **Brown, A.M.** "Piloting a Community of Student Data Consultants that Supports and Enhances Research Data Services". 15th Annual International Digital Curation Conference (IDCC): Collective Curation: the many hands that make data work. Dublin, Ireland. February 2020. [Slides]

22.   Lewis, S.N. and **Brown, A.M.** "Developing A Collaborative Teaching Plan: Strategies and Insights."12th Annual International Conference on Higher Education Pedagogy. Blacksburg, VA. February 2020. [Slides]

23.   MacDonald, A. and **Brown, A.M.** (2020) "In-person, embedded, & online: Designing a pedagogically based undergraduate research literacy program." 12th Annual International Conference on Higher Education Pedagogy. Blacksburg, VA. February 2020. [Slides]

24.   Briganti, J. and **Brown, A.M**. (2019) "Creation and Impact of a Library-Based, Collaborative Undergraduate Research Program" 6th Biennial Kathleen A. Zar Symposium: High Impact Collaboration: Libraries and Undergraduate Research Partnerships. Chicago, IL. September 2020.

25.   MacDonald, A., **Brown, A.M.**, and Swaby, K. (2019) "Model for Implementing and Validating Undergraduate Research and Other HIPs." 11th Annual International Conference on Higher Education Pedagogy. Blacksburg, VA. February 2019. [Proceedings]

26.   Briganti, J.B., and **Brown, A.M.** (2019) "Exposing Students in a Data-Driven Cohort to Ill-Defined Problems." 11th Annual International Conference on Higher Education Pedagogy. Blacksburg, VA. February 2019. [Proceedings]

27.   Briganti, J.B., and **Brown, A.M.** (2019) "Creation of an Interdisciplinary, Data-Centric Training Program for Students." 11th Annual International Conference on Higher Education Pedagogy. Blacksburg, VA. February 2019. [Proceedings]

28.   **Brown, A.M**., Briganti, J.B., Briganti, J.M., and Ogier, A. (2018) "Disparate Data Surrounding the Opioid Epidemic: Case Study in Visualizations and Student Learning Experience." UVA 2018 Datapalooza. Charlottesville, VA. November 2019. [Link]

29.   **Brown, A.M.** (2018) "Molecular Dynamics Simulations of gp120 and gp41 of HIV Env Provide Insights into Strain Specificity and the Role of the Membrane Environment." Virginia Tech Math-Bio Seminar Series. Blacksburg, VA. November 2018. [Link]

30.   Ogier, A., **Brown, A.M**., Petters, J., Hilal, A., Porter, N. (2018) "Enhancing Collaboration Across the Research Ecosystem: Using Libraries as Hubs for Discipline-Specific Data Experts." Proceedings of the Practice and Experience on Advanced Research Computing (PEARC18) Conference. Pittsburg, PA. July 2018. 3219126: ACM, 1-6. [DOI]

31.   **Brown, A.M.** (2018) "Introducing 3-D Visualization Software in Science Classes: Making Connections and Building Skills in Core Concepts". Biotechnology Educators Conference. Blacksburg, VA, July 2018. [VT News Story] [OSF Materials Page]

32. **Brown, A.M**., and Ogier, A.L. (2018). The OSF and Undergraduate Research: The Bevan Brown Lab. Part of RDAP Webinar How Researchers Use Open Source Tools to Facilitate Collaboration. January 23, 2018. [OSF Materials Page]

33. **Brown, A.M.**, Worrell, B.L., Santos, W., and Bevan, D.R. (2017) "Utilization of *In Silico* Techniques to Aid Drug Design: Development of Novel, Knowledge-based Scoring Methods for Sphingosine Kinases." Commonwealth of Virginia Cancer Research Conference. Charlottesville, VA, September 2017.

34. **Brown, A.M.**, and Bevan, D.R. (2017) "Introducing Protein 3-D Visualization Software to Freshman Undergraduate Students: Making Connections and Building Skills." Proceedings of the Practice and Experience in Advanced Research Computing (PEARC17) Conference. New Orleans, LA. July 2018. 3093347: ACM; 1-6. [DOI]

35. **Brown, A.M.** and Lewis, S.N. (2017) "Pedagogical Practices to Engage Undergraduates in the Research Process". 9th Annual Conference on Higher Education Pedagogy. Blacksburg, VA, February 2017.

36. **Brown, A.M.** (2016) "Introducing 3-D Visualization Software in Science Classes: Making Connections and Building Skills in Core Concepts". Biotechnology Educators Conference. Blacksburg, VA, July 2016.

37. **Brown, A.M.** (2016) "Introducing 3-D Visualization Software and Using it for Understanding Concepts in Coursework". Virginia Tech Biocomplexity Institute High-Performance Computing in the Medical Sciences. Blacksburg, VA, July 2016.

38. **Brown, A.M**., Lewis, S.N., and Bevan, D.R. (2015) "Utilization of Molecular Visualization Programs in the Classroom." Biotechnology Educators Conference. Blacksburg, VA, July 2015.

PRESENTATIONS (ORAL AND POSTER) AND PUBLISHED ABSTRACTS

* indicates undergraduate research mentee; underline indicates poster designer and presenter.
For all undergraduate research mentees; A.M. Brown contributed by aiding in project ideation, data analysis, figure generation, poster generation, poster critique, and presentation practice. A.M. Brown directly mentored these students. For other posters, A.M. Brown was a collaborator and contributed computational results and figures.

1. **Hicklin, I.,* Yang, Z., **Brown, A.M.** "In silico exploration of inhibitors of the Type IV pilus extension protein PilB in Clostridioides difficile." Dennis Dean Undergraduate Research & Creativity Scholarship Conference. Blacksburg, VA, April 2022. (Poster Presentation)

2. **Briganti, A., *DeSimone. S.,* Lowell. A., **Brown, A.M.** "Combating Antimicrobial Resistance: Characterizing Ribosomal Antibiotic Binding Pockets to Advance Bidentate Design." Dennis Dean Undergraduate Research & Creativity Scholarship Conference. Blacksburg, VA, April 2022. (Poster Presentation)

3. **Desverreaux. E.,* **Brown, A.M.** "Using MD Simulations to Characterize Biologic Peptide Folding for Disrupting PD1/PD-L1 Interfaces." Dennis Dean Undergraduate Research & Creativity Scholarship Conference. Blacksburg, VA, April 2022. (Poster Presentation)

4. **Greatorex-Potter. C.,* **Brown, A.M.** "Using In-Silico Techniques to Design Novel Antagonists for Propanediol Dehydratase." Dennis Dean Undergraduate Research & Creativity Scholarship Conference. Blacksburg, VA, April 2022. (Poster Presentation)

5. *Kamineni. M., **Brown, A.M.** "Computational Analysis of the Amphipathic Helix A and B Region of Brome Mosaic Virus Replication Protein 1a." Dennis Dean Undergraduate Research & Creativity Scholarship Conference. Blacksburg, VA, April 2022. (Poster Presentation)

6. *Mukora. V., **Brown, A.M.** "Practical Application of Machine Learning to Solar Energy." Dennis Dean Undergraduate Research & Creativity Scholarship Conference. Blacksburg, VA, April 2022. (Poster Presentation)

7. *Toms. M., **Brown, A.M.** "Probing the Influence of Inhibitor Presence on the Dynamic States of Sphingosine Kinase Isoforms." Dennis Dean Undergraduate Research & Creativity Scholarship Conference. Blacksburg, VA, April 2022. (Poster Presentation)

8. King. K., Bevan, D.R., **Brown, A.M.** "Using molecular dynamics simulations to explore natural product inhibitors against IAPP$_{(20-29)}$ aggregation." American Chemical Society (ACS) National Meeting & Expo., March 2022. (Poster Presentation)

9. Chen. D., **Brown, A.M.** "Integrating telemedicine into undergraduate medical education using the EPA framework." Change MedEd., September 2021. (Conference Presentation)

10. Chen. D., **Brown, A.M.** "Statistical Literacy in Data Science." Joint Statistical Meeting 2021 Lightning Talk., August 2021. (Conference Presentation)

11. Chen. D., **Brown, A.M.** "Learn Python Through Data Processing in Pandas." SciPy 2021 Conference Workshop., July 2021. (Conference Presentation)

12. Chen. D., **Brown, A.M.** "Creating Learner Personas to Teach Data Science Effectively." SciPy 2021 Conference Poster., July 2021. (Poster Presentation)

13. Chen. D., **Brown, A.M.** "Learner Personas for Domain-Specific Data Science Education Materials." PyCon 2021 Education Summit., May 2021. (Conference Presentation)

14. *Briganti, A., *DeSimone. S., **Brown, A.M.** "Combating Antimicrobial Resistance: Characterizing Ribosomal Antibiotic Binding Pockets to Advance Bidentate Design." Dennis Dean Undergraduate Research & Creativity Scholarship Conference. Blacksburg, VA, April 2021. (Poster Presentation)

15. *Collins E., **Brown, A.M.** "Using Virtual Screening to Develop Predictive Models to Discover Novel Partial Agonists of PPARγ." Dennis Dean Undergraduate Research & Creativity Scholarship Conference. Blacksburg, VA, April 2021. (Poster Presentation)

16. *Dolby. M., *Tran. C., *Warwick. E., **Brown, A.M.** "Effects of Redlining on the 1983 Chicago Mayoral Election." Dennis Dean Undergraduate Research & Creativity Scholarship Conference. Blacksburg, VA, April 2021. (Poster Presentation).

17. *Elliott. T., **Brown, A.M.** "Using Molecular Dynamics to Determine Influence of HIV-gp41 Cytoplasmic Tail Region Length on Protein-Membrane Stability." Dennis Dean Undergraduate Research & Creativity Scholarship Conference. Blacksburg, VA, April 2021. (Poster Presentation)

18. *Jung. J., **Brown, A.M.** "Assessing and Evaluating the Atomistic Interaction differences between Sphingosine and Inhibitors for Sphingosine Kinase Druggability." Dennis Dean Undergraduate Research & Creativity Scholarship Conference. Blacksburg, VA, April 2021. (Poster Presentation).

19. *Mukora. V., **Brown, A.M.** "Applying Predictive Modeling to Enhancing Solar Energy Efficiency." Dennis Dean Undergraduate Research & Creativity Scholarship Conference. Blacksburg, VA, April 2021. (Poster Presentation)

20. *Schumacher. C., **Brown, A.M.** "Spinster 2 (SPNS2) Transport Protein: Visualizing and Observing Solvent Flow, Ion Transportation, Interacting Residues, and Protein Structure Stability." Undergraduate Research & Creativity Scholarship Conference. Blacksburg, VA, April 2021. (Poster Presentation)

21. *Mukora. V., **Brown, A.M.** "Applying Multiple Linear Regression to Predicting Solar Energy". ACC Meeting of the Minds hosted by University of North Carolina., April 2021. (Poster Presentation)

22. Sharp, A.S., Bevan, D.R., **Brown, A.M.**, and Anandakrishnan, R. "Molecular insights into OR2T7: Coupled computational and experimental techniques reveal a novel prognostic marker for glioblastoma multiform." American Chemical Society (ACS) National Meeting & Expo. Virtual, March 2020. (Poster Presentation)

23. *Dang, R., Edwards, S., **Brown, A.M.**, Briganti, J.S., and Blanc, L. "An Overview of the Historical Evolution of Natural and Synthetic Opioids." Dennis Dean Undergraduate Research & Creativity Scholarship Conference. Blacksburg, VA, April 2020. (Poster Presentation)

24. *Gottschalk, C.J., and **Brown, A.M.** "In Silico Characterization and Mutagenesis of Disabled-2-derived Peptide Sulfatide Binding Motif as a Target for Anti-Metastasis Therapeutics." Dennis Dean Undergraduate Research & Creativity Scholarship Conference. Blacksburg, VA, April 2020. (Poster Presentation)

25. *Tartabini, S.G., and **Brown, A.M.** "A Bioinformatics Approach to Characterizing and Analyzing G-Protein-Coupled Receptors." Dennis Dean Undergraduate Research & Creativity Scholarship Conference. Blacksburg, VA, April 2020. (Poster Presentation)

26. Sharp, A.S., Bevan, D.R., **Brown, A.M.**, and Anandakrishnan, R. "Molecular insights into OR2T7: Coupled computational and experimental techniques reveal a novel prognostic marker for glioblastoma multiform." American Chemical Society (ACS) National Meeting & Expo. Virtual, March 2020. (Poster Presentation)

27. *Dang, R., Edwards, S., **Brown, A.M.**, Briganti, J.S., and Blanc, L. "An Overview of the Historical Evolution of Natural and Synthetic Opioids." Dennis Dean Undergraduate Research & Creativity Scholarship Conference. Blacksburg, VA, April 2020. (Poster Presentation)

28. *Gottschalk, C.J., and **Brown, A.M.** "In Silico Characterization and Mutagenesis of Disabled-2-derived Peptide Sulfatide Binding Motif as a Target for Anti-Metastasis Therapeutics." Dennis Dean Undergraduate Research & Creativity Scholarship Conference. Blacksburg, VA, April 2020. (Poster Presentation)

29. *Tartabini, S.G., and **Brown, A.M.** "A Bioinformatics Approach to Characterizing and Analyzing G-Protein-Coupled Receptors." Dennis Dean Undergraduate Research & Creativity Scholarship Conference. Blacksburg, VA, April 2020. (Poster Presentation)

30. *King, K., **Brown, A.M.**, and Bevan, D.R. "Small Molecules as Amyloid Inhibitors: Molecular Dynamics Simulations with Islet Amyloid Polypeptide." Drug Discovery Day: 2019. Blacksburg, VA, November 2019. (Poster Presentation)

31. Sharp, A.K., **Brown, A.M.**, Bevan, D.R., and Santos, W.L. "Using Molecular Dynamics (MD) Simulations to Enhance Drug Discovery: Binding Pocket Dynamics Elucidates Isoform Selectivity of Sphingosine Kinases." Drug Discovery Day: 2019. Blacksburg, VA, November 2019. (Poster Presentation)

32. Sibley, C.D, Morris, E.A., Kharel, Y., **Brown, A.M.**, Bevan, D.R., Lynch, K.R., Santos, W.L. "Aryl Ring Modifications of Sphingosine Kinase 2 Selective Inhibitors." Drug Discovery Day: 2019. Blacksburg, VA, November 2019. (Poster Presentation)

33. Wisdom, E.L., Stauffer, P., Jachim, S.K., Lawrence, B., Jiang, L., Zou, X., **Brown, A.M.**, and Finkielstein, C.V. "Circadian Regulation of the p53 Response in Cancer Therapeutics." Drug Discovery Day: 2019. Blacksburg, VA, November 2019. (Poster Presentation)

34. *Collins, E., and **Brown, A.M.** "In Silico Investigation of Multiligand Cobinding Activation in PPARγ and its Natural Mutations." Virginia Tech's Office of Undergraduate Research Summer Symposium. Blacksburg, VA, August 2019. (Poster Presentation)

35. *Kawecki, G., and **Brown, A.M.** "Insight into Islet Amyloid Polypeptide (IAPP) and Amyloid-β Peptide Interactions Using Molecular Dynamics Simulation." Virginia Tech's Office of Undergraduate Research Summer Symposium. Blacksburg, VA, August 2019. (Poster Presentation)

36. *Miller, A., and **Brown, A.M.** "Sphingosine Kinase Inhibitor Discovery Through De Novo Chemical." Virginia Tech's Office of Undergraduate Research Summer Symposium. Blacksburg, VA, August 2019. (Poster Presentation)

37. *Rayden, B., and **Brown, A.M.**, and Briganti, J.S. "Supporting the Advancement of Virginia Based Opioid-Related Resources by Creating a User-Friendly and Consistently Aggregated Data Resource." Virginia Tech's Office of Undergraduate Research Summer Symposium. Blacksburg, VA, August 2019. (Poster Presentation)

38. Sharp, A.K., Lewis, S.N., and **Brown, A.M.** "Creating Effective STEM Outreach Experiences for High School Students: Development of a Molecular Modeling Workshop Series." Practice and Experience in Advance Research Computing (PEARC19). Chicaco, IL, July 2019. (Poster Presentation)

39. *Hayes, H.G., *Mckinney, J.C., *Richardson, E.S., *Warren, J.B., **Brown, A.M.**, and Bevan, D.R. "Examining the Effects of Mutations of Amyloid Beta(A_) on Neurodegenerative Disease Pathology Using Molecular Dynamics (MD) Simulations." Dennis Dean Undergraduate Research & Creativity Scholarship Conference. Blacksburg, VA, April 2019. (Poster Presentation)

40. *Kawecki, G.E., *Cramer, N.A., **Brown, A.M.**, and Bevan, D.R. "Insight into Amyloid Interactions: Molecular Dynamics Simulations of Model Peptide Fragments." Dennis Dean Undergraduate Research & Creativity Scholarship Conference. Blacksburg, VA, April 2019. (Poster Presentation)

41. *Okada, J.A., and **Brown, A.M.** "A Computational Approach to Characterizing the Interactions between Rcan1.4 and Raf1, Two Proteins Involved in Down Syndrome Tumor Regulation." Dennis Dean Undergraduate Research & Creativity Scholarship Conference. Blacksburg, VA, April 2019. (Poster Presentation)

42. **Brown, A.M.**, Hollingsworth, L.R., Lemkul, J.A., Gandour, R.D., and Bevan, D.R. "Molecular Dynamics Simulations of GP120 and GP41 of HIV ENV Provide Insights into Strain Specificity and the Role of the Membrane Environment." 63rd Annual Meeting of the Biophyisical Society. Baltimore, Maryland, March 2019. (Poster Presentation)

43. Capelluto, D.G., Xiong, W., Littleton, E., Jiang, L., **Brown, A.M.**, and Finkielstein, C. "Autoinhibition Mechanism for Phosphoinositide Binding by the Endosomal Trafficking Protein TOM1." 63rd Annual Meeting of the Biophyisical Society. Baltimore, Maryland, March 2019. (Poster Presentation)

44. Cramer, N.A., Kawecki, G., Bevan, D.R., and **Brown, A.M.** "Insight into Amyloid Interactions Molecular Dynamics Simulations of Model Peptide Fragments." 63rd Annual Meeting of the Biophyisical Society. Baltimore, Maryland, March 2019. (Poster Presentation)

45. *Barto, D., **Brown, A.M.** "Domain-Specific Experiential Learning in HPC as an Introductory Framework." Practice & Experience in Advanced Research Computing Conference Series. Pittsburg, PA, July 2018. (Poster Presentation)

46. *Cramer, N., and **Brown, A.M.** "Insight into Islet Amyloid Polypeptide (IAPP) and Amyloid-B″ Peptide Interactions Using Molecular Dynamics Simulations." Virginia Tech's Office of Undergraduate Research Summer Symposium. Blacksburg, VA, July 2018. (Poster Presentation)

47. *Sharp, A., **Brown, A.M.**, Bevan D. R., and White, B. "Identifying Radical SAM Enzymes and Characterizing GRE-AEs in Methanocaldococcus jannaschii using Bioinformatic Tools." Virginia Tech's Office of Undergraduate Research Summer Symposium. Blacksburg, VA, July 2018. (Poster Presentation)

48. Hao, L., **Brown, A.M.**, Wonilowicz, L.G, Kharel, Y., Bevan, D.R., Lynch, K.R., Santos, W.L. "Development of (R)-Prolinol Based Derivatives Targeting Sphingosine Kinase-1." VirginiaDrugDiscoveryRx Symposium. Arlington, Virginia, June 2018. (Poster Presentation)

49. *Kelly, C., **Brown, A.M.**, Bevan, D.R., and Lewis, N. "Differences Between the Structures of Amyloidogenic and Non-amyloidogenic Islet Amyloid Polypeptide (IAPP) Variants." Experiential Learning Conference. Blacksburg, VA, April 2018. (Poster Presentation)

50. *Lowney, S. P., *Lee, C.B., and **Brown, A.M.** "Insights into Amyloidogenicity: Molecular Dynamics Simulations of Amyloid in Varying Environments." Experiential Learning Conference. Blacksburg, VA, April 2018. (Poster Presentation)

51. *Barto, D., **Brown, A.M.**, and Bevan, D.R. "Molecular Modeling of Amyloid Aggregation." Virginia Tech's Office of Undergraduate Research Summer Symposium. Blacksburg, VA, July 2017. (Poster Presentation)

52. *Richardson, M., **Brown, A.M.**, and Bevan, D.R. "Assessing the Influence of Flavonoids in Attenuating β-strand Fibril Formation of Islet Amyloid Polypeptide by Molecular Dynamics Simulations." 12th Annual Atlantic Coast Conference Meeting of the Minds. Durham, North Carolina, March 2017. (Poster Presentation)

53. *Han, D., **Brown, A.M.**, and Bevan, D.R. "Insight into Cross-amyloid Interactions in Alzheimer's disease and Type II diabetes: Molecular Dynamics Simulations of Aβ(16-22) and IAPP(20-29) Hexamer Formation." Dennis Dean Undergraduate Research & Creativity Scholarship Conference. Blacksburg, VA, February 2017. (Poster Presentation)

54. *Richardson, M., **Brown, A.M.**, and Bevan, D.R. "Assessing the Influence of Flavonoids in Attenuating β-strand Fibril Formation of Islet Amyloid Polypeptide by Molecular Dynamics Simulations." Dennis Dean Undergraduate Research & Creativity Scholarship Conference. Blacksburg, VA, February 2017. (Poster Presentation)

55. *Seeley, K.M., **Brown, A.M.**, Bevan, D.R., and Lewis, S.N. "Investigating the Effect of PPARγ, Mutation Q286P on 15-deoxy-Δ12,14-prostaglandin J2 Binding Activity Using Molecular Dynamics and Docking Simulations." Dennis Dean Undergraduate Research & Creativity Scholarship Conference. Blacksburg, VA, February 2017. (Poster Presentation)

56. *Soueid, H., *Briganti, J.S., *Friend, J., and **Brown, A.M.** "Effect of Ligand Presence on Conformational Oscillation of PPARγ." Dennis Dean Undergraduate Research & Creativity Scholarship Conference. Blacksburg, VA, February 2017. (Poster Presentation)

57. *Worrell, B.L., **Brown, A.M.**, and Bevan, D.R. "Structural Distinctions Between Isoforms of Human and Mouse Sphingosine Kinases." Dennis Dean Undergraduate Research & Creativity Scholarship Conference. Blacksburg, VA, February 2017. (Poster Presentation)

58.   *Worrell, B.L., **Brown, A.M.**, and Bevan, D.R. "Structural Distinctions Between Isoforms of Human and Mouse Sphingosine Kinases." Summer Undergraduate Research Symposium. Blacksburg, VA, July 2016. (Poster Presentation)

59.   *Briganti, J.S., *Elliott, B., and **Brown, A.M.** "Preliminary Interest in Regular Cognitive Screening." Summer Undergraduate Research Symposium. Blacksburg, VA, July 2016. (Poster Presentation)

60.   **Brown, A.M.** and Bevan, D.R. "Atomistic Molecular Dynamics Simulations of Amyloid b-peptide (1-42): Tetramer Formation, Rearrangement, and Membrane Interactions." VirginiaBrainRX: A Symposium on Drug Discovery for the Brain. Richmond, VA, May 2016. (Poster Presentation)

61.   **Brown, A.M.** and Bevan, D.R. "Utilization of Computational Techniques to Understand Protein Structure-Function Relationships and Guide Drug Design." VirginiaBrainRX: A Symposium on Drug Discovery for the Brain. Richmond, VA, May 2016. (Poster Presentation)

62.   *Hollingsworth, L.R. IV, *Fuchs, R.L., *Werle, C.M., **Brown, A.M.**, Bevan, D.R., and Gandour, R.D. "Computational Insights into the Optimization of Anti-HIV Alternating Copolymers." Virginia Tech Advanced Research Computing High Performance Computing Day, Blacksburg, VA, April 2016. (Poster Presentation)

63.   *Hollingsworth, L.R. IV, *Fuchs, R.L., *Werle, C.M., **Brown, A.M.**, Bevan, D.R., and Gandour, R.D. "Computational Insights into the Optimization of Anti-HIV Alternating Copolymers." National Conference on Undergraduate Research. Asheville, NC, April 2016. (Poster Presentation)

64.   *Richardson, M.R., **Brown, A.M.**, and Bevan, D.R. "Assessing the Influence of Flavonoids in Attenuating b-strand Fibril Formation of Islet Amyloid Polypeptide by Molecular Dynamics Simulations." National Conference on Undergraduate Research. Asheville, NC, April 2016. (Poster Presentation)

65.   *Seeley, K., **Brown, A.M.**, Lewis, S.N., and Bevan, D.R. "The Effect of PPARg Mutation Q286P on 15-deoxy-12,14-prostaglandin J2 Binding Activity." National Conference on Undergraduate Research. Asheville, NC, April 2016. (Poster Presentation)

66.   *Hollingsworth, L.R. IV, *Fuchs, R.L., *Werle, C.M., **Brown, A.M.**, Bevan, D.R., and Gandour, R.D. "Computational Insights into the Optimization of Anti-HIV Alternating Copolymers." Abstracts of Papers, AIChE Mid Atlantic Regional Student Conference, Newark, DE, April 2016. (Oral Presentation)

67.   *Hollingsworth, L.R. IV, *Fuchs, R.L., *Werle, C.M., **Brown, A.M.**, Bevan, D.R., and Gandour, R.D. "Computational insights into the optimization of anti-HIV alternating copolymers." Abstracts of Papers, 251st ACS National Meeting and Exposition, San Diego, CA, March 2016. (Poster Presentation)

68.   *Bittner, M.C., **Brown, A.M.**, and Bevan, D.R. "Understanding Different Factors Affecting Type 2 Diabetes Caused by Variations in IAPP Sequence". 2016 Undergraduate Research and Creative Scholarship Conference. Blacksburg, VA, February 2016. (Poster Presentation)

69.   *Dimitry, N.E., **Brown, A.M.**, and Bevan, D.R. "Using Molecular Dynamics Simulations to Assess Inhibitor Specificity between Sphingosine Kinase 1 and 2. 2016 Undergraduate Research and Creative Scholarship Conference. Blacksburg, VA, February 2016. (Poster Presentation)

70.   *Northington, D., **Brown, A.M.**, and Bevan, D.R. "Insights into Amyloidogenicity: Molecular Dynamics Simulations of Ab$_{(17-42)}$(p3) in Varying Environments." Summer Undergraduate Research Symposium. Blacksburg, VA, July 2015. (Poster Presentation)

71. *Mushagasha, J., **Brown, A.M.**, Hilu, K., and Bevan, D.R. "Assessing Structural Differences and the Potential Link to Allergenicity of Antigenic Peanut Protein Orthologs from the Genus Arachis." Summer Undergraduate Research Symposium. Blacksburg, VA, July 2015. (Poster Presentation)

72. *Miller, J., **Brown, A.M.**, Lewis, S.N., and Bevan, D.R. "Molecular Docking of PPARα to Identify Potent Therapeutic Agents for Cardiovascular Disease." 13th Annual VT Undergraduate Research Conference. Blacksburg, VA, April 2015. (Poster Presentation).

73. **Brown, A.M.** and D.R. Bevan. "Influence of Sequence and Lipid Type on Membrane Perturbation by Human and Rat Amyloid β-Peptide (1-42)." 249th Annual ACS National Meeting. Denver, CO, March 2015. (Poster presentation)

74. **Brown, A.M.** and D.R. Bevan. "Influence of Sequence and Lipid Type on Membrane Perturbation by Human and Rat Amyloid β-Peptide (1-42)." 59th Annual Biophysical Society Meeting. Baltimore, MD, February 2015. (Poster presentation)

75. **Brown, A.M.**, Lewis, S.N., and Bevan, D.R. "Development of a Structure Undergraduate Research Experience: Framework and Implications". 7th Annual Conference on Higher Education Pedagogy. Blacksburg, VA, February 2015. (Oral presentation)

76. **Brown, A.M.**, Lemkul, J.A., *Schaum, N., and Bevan, D.R. "Solution Conditions and Oxidation State of Methionine-35 Affect the Aggregation Properties of Amyloid β-Peptide (1-40)." Molecular Biophysics Symposium. Blacksburg, VA, November 2014. (Poster presentation)

77. Miller, D.V., **Brown, A.M.**, Xu, H., Bevan, D.R., and White, R.H. "Elucidating the Role of a Conserved Cysteine in Adenine Deaminases". Molecular Biophysics Symposium. Blacksburg, VA, November 2014. (Poster presentation)

78. *Berk, S.J., **Brown, A.M.**, Zhao, X., Armstrong, G., Capelluto, D.G.S., and Bevan, D.R. "Membrane Binding Properties of the Innate Immunity Adaptor TIRAP". Molecular Biophysics Symposium. Blacksburg, VA, November 2014. (Poster presentation)

79. *Izac, J.R., **Brown, A.M.**, Xu, B., and Bevan, D.R. "Homology Modeling and Ligand Interactions of GPCRs." 12th Annual VT Undergraduate Research Conference. Blacksburg, VA, April 2014. (Poster presentation)

80. *Kellinger, C.P., **Brown, A.M.**, Long, T.E., and Bevan, D.R. "Molecular Dynamics of Non-Viral Gene Delivery Vectors." 12th Annual VT Undergraduate Research Conference. Blacksburg, VA, April 2014. (Poster presentation)

81. *Yang, S.H., *Hart, M.R., **Brown, A.M.**, Lemkul, J.A., and Bevan, D.R. "Determining the Efficacy of Wine-Related Flavonoids in the Inhibition of Amyloid β-peptide Aggregates." 12th Annual VT Undergraduate Research Conference. Blacksburg, VA, April 2014. (Poster presentation)

82. *Ruohoiemi, D., **Brown, A.M.**, Long, T.E., and Bevan, D.R. "Relative Stability of DNA Complexes with Phosphonium/Ammonium-Based Cationic Vectors." Summer Undergraduate Research Symposium. Blacksburg, VA, July 2013. (Oral presentation)

83. *Quasie-Woode, D., Brown A.M., and Bevan, D.R. "Molecular Dynamics Simulation of Interactions Between Amyloid β-peptide and Kisspeptin." Summer Undergraduate Research Symposium. Blacksburg, VA, July 2013. (Poster presentation)

84. **Brown, A.M.**, Lemkul, J.A., Schaum, N., and Bevan D.R. "Solution Conditions and Oxidation State of Methionine-35 Affect the Aggregation Properties of Amyloid β-Peptide (1-40)." 92nd Annual Meeting of the Virginia Academy of Science. Blacksburg, VA, May 2013.

85. *Maddox, D.R., **Brown, A.M.**, Xu, B., and Bevan, D.R. "Computational Characterizing the Structural Dynamics and Interactions of Irisin". 92nd Annual Meeting of the Virginia Academy of Science. Blacksburg, VA, May 2013. (Poster presentation)

86. **Brown, A.M.**, Lemkul, J.A., Schaum, N., and Bevan D.R. "Solution Conditions and Oxidation State of Methionine-35 Affect the Aggregation Properties of Amyloid β-Peptide (1-40)." VT 29th Annual Graduate Student Research Symposium. Blacksburg, VA, March 2013. (1st place poster, poster presentation)

87. Miller, D.V., **Brown, A.M.**, and White, R.H. "Establishing New Functions for Conserved Cysteine Motifs in Methanogenic Archaea." Gordon Research Conference "Thiol-Based Redox Regulation and Signaling". Lewiston, ME, August 2012. (Poster presentation)

88. Valenciano, A., **Brown, A.M.**, and Mackey, Z.B. "Determining the Functional Relationship between TbERK8 and TbPCNA in Trypanosoma brucei." Gordon Research Conference "Biology of Host-Parasite Interactions", Newport, RI, June 2012. (Poster presentation)

COURSES TAUGHT

SP2019-SP2022	**Instructor of Record**
	BCHM 1984: SS: Intro to Biochemistry II
	Department of Biochemistry, Virginia Tech
	o Developed course that is a continuation of the First Year Experience Course (FYE) BCHM 1014 Introduction to Biochemistry, which is designed to engage students in curricular and co-curricular learning opportunities and intellectual and practical skills that are foundational to development into lifelong learners. Incorporated CURE, exposure students to research skills, integrated in University Libraries Advanced Research Skills Certificate Program, and group project work that involved scientific presenting and writing.
	o SPOT Teaching Evaluation Scores (semester, enrollment, credit hour, score [out of 6]):
	    o SP 22, 23 students, 1H 1C, SPOT [5.7/6]
	    o SP 21, 39 students, 1H 1C, SPOT [5.9/6]
	    o SP 20, 29 students, 1H 1C, SPOT [6/6]
	    o SP 19, 39 students, 1H 1C, SPOT [5.5/6]

SP2014 – SP2021	**Instructor of Record**
	BCHM 5024: Computational Biochemistry for Bioinformatics
	Department of Biochemistry, Virginia Tech
	o Developed and continually updated course lectures, assignments, and content scheduling. Project-based learning environment with final project using techniques learned in class. Graded assignments and exams, met with students to aide in students in understanding the software for assignments, and guided final project development.
	o SPOT Teaching Evaluation Scores (semester, enrollment, credit hour, score [out of 6]):
	    o SP 21 24 students, 3H 3C, SPOT [5.8/6]
	    o SP 19, 7 students, 3H 3C, SPOT [6/6]
	    o SP 18, 5 students, 3H 3C, SPOT [6/6]

- SP 17, 8 students, 3H 3C, SPOT [5.3/6]
- SP 16, 6 students, 3H 3C, SPOT [5.6/6]
- SP 15, 12 students, 3H 3C, SPOT [5.8/6]

SP2020   **Instructor of Record**
UNIV 1984: SS: iScholars Mini Capstone Course
Academic Affairs, Virginia Tech
Co-instructor with Jonathan Briganti (University Libraries)

- Developed course that provides an interdisciplinary, active-learning based background and exposure to working on and completing team projects for students. These projects, a mini-capstone, are provided by a company partner of the iScholars program. The corporate partners include Booz-Allen, U.S. Green Building Council, General Dynamics, Deloitte, Arc Skoru and CGI. This course provides background knowledge and training in teamwork and project management with an agile/scrum framework, basics of being a consultant on a project, critical thinking and problem solving, and professional presentations and writing skills in the context of completing the capstone project.
- SPOT Teaching Evaluation Scores (semester, enrollment, credit hour, score [out of 6]):
  - SP 20, 24 students, 1H, 1C, SPOT [5.7/6]

SP2019   **Instructor of Record**
ALS 1984: SS: Research Practices
CALS, Virginia Tech
Co-instructor with Amanda MacDonald (University Libraries)
- Developed and taught course for students to jump-start their training in interdisciplinary research agendas and best practices. This course aids students in understanding the process of research and position themselves effectively for internships, co-ops, REUs (Research Experiences for Undergraduates), graduate programs, and work in highly competitive research projects on campus and beyond.
- SPOT Teaching Evaluation Scores (semester, enrollment, credit hour, score [out of 6]):
  - SP 19, 3 students, 3H 3C, SPOT [6/6]

SP2017 –   **Instructor of Record**
SP2019   UH 1604: Honors Undergraduate Research Practices
Honors College, Virginia Tech
Co-instructor with Dr. Nikki Lewis (Honors College) and Amanda MacDonald (University Libraries)
- Developed and taught course for honors students to jump-start their training in interdisciplinary research agendas and best practices. This course aids in helping students understand the process of research and position themselves effectively for internships, co-ops, REUs (Research Experiences for Undergraduates), graduate programs, and work in highly competitive research projects on campus and beyond.
- SPOT Teaching Evaluation Scores (semester, enrollment, credit hour, score [out of 6]):
  - SP 19, 21 students, 3H 3C, SPOT [5.6/6]
  - SP 18, 39 students, 3H 3C, SPOT [5.5/6]
  - SP 17, 31 students, 3H 3C, SPOT [5.4/6]

SSII 2014   **Instructor of Record**
ALS 2984: Chemical Problem Skills for the Life Sciences
Department of Biochemistry, Virginia Tech
- Developed course and presented all lectures, assignments, and exams related to the course.
- Topics include: significant figures, stoichiometry, concentrations, molarity applications, ionic equations and precipitates, acid-base fundamentals.
- SPOT Teaching Evaluation Scores (semester, enrollment, credit hour, score [out of 6]):
  - SSII 14, 10 students, 3H 3C, SPOT [5.6/6]

GRADUATE AND UNDERGRADUATE GUEST LECTURES AND COLLABORATIVE TEACHING

2022   **ALS 1984** Introduction to Research Practices, **ENSC 4414** Monitoring & Analysis in Environmental Science, **LDRS 1424** Citizen Leadership Praxis

2021   **ALS 1984** Introduction to Research Practices **BIOL 5194** Prokaryotic Recombinant Proteins, **BCHM 1014** BCHM First Year Experience, **CMDA 1634** Discovering CMDA, **NANO 2114** Nanoscience Research Seminar, **SYSB 2025** Intro to Systems Biology I, **UL** Advanced Research Skills Certificate Program

2020   **BCHM 2114** Biochemical Calculations, **BCHM 4124** Laboratory Problems in Biochemistry, **UL** Advanced Research Skills Certificate Program, **ALS 1984** Introduction to Research Practices, **UH 4505** Honors SuperStudio: "Medicare for All!": Data Analysis for Health Reform, **UH 4504** Drug Discovery and Design in the Digital Age, **SYSB 2025** Intro to Systems Biology I, **BIOL 4853/BIOL5843-G** Practical Analysis of Protein Structure Function, **CMDA 1984** SS: Computing Skills for CMDA

2019   **BCHM 2114** Biochemical Calculations, **UL** Advanced Research Skills Certificate Program, **UH 4504** Drug Discovery and Design in the Digital Age, **BCHM 1014** BCHM First Year Experience, **SYSB 2025** Intro to Systems Biology I, **UH 4504** Drug Discovery and Design in the Digital Age

2018   **UL** Advanced Research Skills Certificate Program, **CALS** Communicating Science Workshop, **UH 4505** Medicare for All! Health Care, Data Ethics, and Social Equity, **SYSB 2025** Intro to Systems Biology I, **BCHM 1014** BCHM First Year Experience, **BIOL 4853/BIOL5843-G** Practical Analysis of Protein Structure Function

2017   **BCHM 2114** Biochemical Calculations, **SYSB 2026** Intro to Systems Biology II, **UL** Advanced Research Skills Certificate Program, **CALS** Communicating Science Workshop, **SYSB 2025** Intro to Systems Biology I, **BCHM 1014** BCHM First Year Experience, **UH 4504** Data and Social Justice, **STAT 1984** Data in Our Lives, **GRAD 5024** Data Management

2016   **BCHM 1014** BCHM First Year Experience, **CS 5764** Information Visualization, **STAT 1004** Experience Learning from Data, **MGT/ENGE/IDS 4009** Startup: Managing Technology Commercialization

PROFESSIONAL DEVELOPMENT LECTURES AND WORKSHOPS

2022   United States Geological Survey (USGS). "What is Tidy Data? And Why Should We Care". 97 attendees.Webinar.

2022   Association for Talent Development (ATD) Valleys of Virginia. " Data Visualization for the Instructional Designer" Webinar. [LINK]

2022   Medical Library Association (MLA). "Clean & Tidy Data: Making Data Usable" Webinar. 37 attendees. [LINK]

2022   Medical Library Association (MLA). "Getting Started Working with Biomedical Spreadsheet Data" Webinar. 71 attendees. [LINK]

2021   DS4BIOMED: Introduction to Data Practices, Tidy Data, R, and Python. Multiple workshops. 100+ attendees. [LINK]

2020   Professional Development Using Slack Panel

2019   Virginia Tech PDN: Strategies and Techniques for Collaborative/Team Teaching (3 credits)

2018   Virginia Tech PDN: How OSF Can Help Organize Your Research
        Virginia Tech PDN: Pedagogical Practices to Engage Undergraduates in the Research Process

2017   Virginia Tech PDN: Intro to the OSF: A Customizable Research Project Site
        Virginia Tech PDN: Pedagogical Practices to Engage Undergraduates in the Research Process

GLOBALLY ACCESSED ONLINE CONTENT

Open Science Framework (OSF)	Brown AM, Briganti J, Sharp A, Kelly C, Gottschalk C, King KMK. Bevan & Brown Lab, Public [Internet]. OSF; 21 July 2022. Available: osf.io/82n73 [LINK] Accessed ~350+ times per month from around the world. Has openly available (CC BY license) tutorials, training materials, scripts, and data output from published works. I oversee and maintain the site, review all content and create content.
YouTube	Brown Lab YouTube Channel [LINK] 971 subscribers, 60K+ views, numerous positive comments (99% positive comments). Content on molecular visualization, molecular docking, and more computational techniques that need enhanced documentation and tutorials. Transcripts are available for all videos in English and Spanish. I oversee and maintain the site and aid in the production of all videos.
Websites	Brown Lab Website Create and maintain site, promote undergraduate and graduate students, host tutorials, and link to other resources (OSF, YouTube) related to molecular modeling, computational biochemistry, and bioinformatics. 42K+ page views, 15K+ unique visitors from 90+ different countries per year. Most popular counties include USA, India, China, Iran, UK, and Germany. https://www.databridge.dev/ Promote undergraduate students, host project information, and link to data science resources for the DataBridge program.

OUTREACH PROGRAMS

Experience in Molecular Modeling and Informatics (EMMI) 2019-present	Experience in Molecular Modeling and Informatics (EMMI) is a summer research opportunity for high school students interested in bioinformatics and computational biochemistry in the New River Valley, Roanoke, and surrounding areas. In this program, we employ the Experiential Learning Theory, which has been extensively researched as a practice for actively teaching through the dynamic learning cycle driven by problem solving and reflection on the experience. Co-founded with Amanda K. Sharp. Successfully deployed in Summer 2019 with 7 students participating from 4 different local high schools. Created pedagogical assessment and IRB for publication on this outreach experience relevant to SOL STEM learning objectives. Students participated in a poster session at the end of the experience attended by faculty and graduate students. Program did not run in entirety in Summer 2020 due to COVID-19 but planned for future summers and we did host a few high school students virtually.
Legacy International: TechGirls [Link] 2021-present	TechGirls is an international summer exchange program designed to empower and inspire young women from the United States, Central Asia and the Middle East and North Africa to pursue careers in science and technology. The centerpiece of the program is a weeklong technology camp that provides participants with an in-depth examination of technology-related topics, such as coding and cyber security and engages them in 45+ hours of hands-on instruction. In 2021, I have created and lead two programs as a part of this summer program – EMMI (Experience in Molecular Modeling and Informatics) and BUDS (Beyond Understanding Data Science). 2021 was asynchronous with ~25 students per program. 2022 is an in-person experience with 34 students for EMMI. Student outcomes can be viewed on VTechWorks and here.

MEMBERSHIP AND LEADERSHIP IN PROFESSIONAL ORGANIZATIONS

2022-present	Center for Open Science Ambassador
2022-present	Student Program, Practice and Experience in Advanced Research Computing International Conference (PEARC22)

2021-present	Awards Chair (PEARC21), Awards Committee (PEARC21, PEARC22) Practice and Experience in Advanced Research Computing International Conference
2021-present	Member, Association for Women in Science
2021-present	Student Program Committee, Supercomputing (SC) 2021, 2022 Conference Series (SC21, SC22)
2020-present	Member, Digital Curation Centre (DCC) Associate Network
2020-present	Member, Research Data Access and Preservation (RDAP) Association
2020-present	Member, Council of Undergraduate Research (CUR)
2016-present	Member, Sigma Xi Scientific Research Society
2014-present	Member, Biophysical Society
2014-present	Member, American Chemical Society
2013 – 2014	Member, Virginia Academy of Science
2010-present	Member, Phi Beta Kappa National Arts and Sciences Honor Fraternity
2010 – 2013	Member, Alpha Epsilon Delta Health Pre-Professional Honor Society

PARTICIPATION IN PROFESSIONAL ORGANIZATIONS AND SERVICE

2022	Chapter Reviewer, 1st edition of *Lehninger Interactions in Biochemistry*
2021, 2022	2021 Conference on Higher Education Pedagogy Proposal Reviewer
2018-2021	Member, Advisory Board of the Regional Accelerator and Mentorship Program (RAMP). I provide insight and meet regularly to identify areas of growth regarding operational elements of the program, including class instruction, lunch and learns, as well as other entrepreneurial development activities for the program and region.
2016-present	Ad-hoc manuscript reviewer. I provide peer-reviews on publication submitted to the following journals: ACS Books, ACS Chemical Neuroscience, ACS Journal of Chemical Information and Modeling, ACS Nano, Biophysical Journal, Bulletin of the Chemical Society of Japan, European Biophysics Journal, Frontiers in Education, Foundations of Data Science, Genome Biology and Evolution, J. of Computational Biophysics & Chemistry (JCBC), Journal of Molecular Modeling, Journal of Molecular Structure and Dynamics, Nature Communications, Nature Communications Biology, PLOS One, Physical Chemistry Chemical Physics

GRANT REVIEW SERVICE

Year	Agency
2022	Reviewer, NSF GRFP Fellowships in Genetics, Genomics & Proteomics [LINK]
2020	Reviewer, 4-VA Collaborative Research Proposals [LINK]
2019-2022	Review Panel, Alzheimer's and Related Diseases Research Award Fund [LINK]

VIRGINIA TECH COMMITTEE SERVICE

2022-present	Virginia Tech Bioinformatics Advisory Committee
2022-present	HSLPG - Health Sciences Libraries Planning Group
2021-present	F.I.R.E Starters Faculty Fellows. Developed F.I.R.E. (Forging Interest in Research and Engagement) Starters undergraduate research program that aims to increase access to and training for research opportunities for underrepresented minority students. Worked with three other faculty members to develop program curriculum, mission and vison, goals, and enroll the first cohort in Fall 2022.

2021-present   Department of Biochemistry Diversity, Equity and Inclusion Committee

2021-present   Genetics, Bioinformatics, and Computational Biology (GBCB) Curriculum Committee

2020-present   CALS Experiential & Pathways Learning Liaison Group
                 Serve as a member of the group to provide insight, brainstorming, and support for experiential and Pathways learning in Fall
                 2020 and beyond.

2020-2022   VT Office of Academic Affairs Fall Lab Planning Core Team member
                 Serve as a resource to the core team for implementing lab courses in Fall 2020 with COVID-19 protocols and precautions in
                 place. Prepare workshop on labs-at-home and other unique routes for remote inquiry.

2020-2022   Virginia Tech Sesquicentennial Celebration Projects and Products work group
                 Serve as a member of the planning committee to brainstorm and implement projects, events, and other products as a part of
                 the VT sesquicentennial celebration.

2020-present   Virginia Tech Institutional Review Board (Alternate Member in Training)
                 Serve as alternate member in training to the institutional review board, complete all trainings needed to review IRB
                 applications, attend board meetings for protocol approval, present cases to the review board as asked, and engage in
                 research protocol and ethics conversations.

2020-2021   Virginia Tech Center for Business Intelligence and Analytics (CBIA) Review Committee

2020   Postdoctoral Scholar Search Committee (Department of Biochemistry)
                 Review applications, interview, and aid in selection of candidate.

2020   Scholarship of Teaching and Learning Award Committee
                 Review applications and aid in selection of candidate.

2019-present   Undergraduate Research Advisory Board
                 Serve on advisory board to provide insight into undergraduate research operations at Virginia Tech, score and judge annual
                 awards, and aid in planning annual research symposium. Co-Chair 2021-2022.

2019-present   Translational Obesity Undergraduate Research Scholars (TOUR-Scholars) Program Advisory Board
                 Serve on advisory board to assist with program development, execution, and assessment as part of a requirement of the NIH
                 grant that funds the program.

2018-2021   Howard Hughes Medical Institute (HHMI) Diversity and Inclusion 2nd cohort faculty member. Attended
                 workshops, Summer Institute, and other professional development training events. Initiated and organized pilot project to
                 enhance diversity and inclusion as a representative of University Libraries and the Dept. of Biochemistry. Pilot project planning
                 in process, contribute to creating a second-semester FYE course to enhance community, provide opportunity to students,
                 and invite to a research symposium (EngelPalooza) held in November 2019, November 2020.

2018-2019   Center for Excellence in Teaching and Learning Experiential Learning in the Disciplines Teaching
                 Special Interest Group
                 Attend bi-weekly meetings on how to engage in experiential learning at Virginia Tech, conceptualize routes of innovation
                 regarding experiential learning.

2018-2019   Member, VT-Carilion Health Analytics Steering Committee.
                 Work towards connecting resources and researchers on both campuses to enhance research impact.

2018   Member, VT Department of Biochemistry Collegiate Faculty Search Committee
                 Review applications, interview, and aid in selection of candidate.

2018	**Transforming Healthcare with Data Symposium Planning Committee.** Collaboration between Virginia Tech and Carilion Clinic. Planned, organized, contributed, and attended symposium in August 2018 attended by 150 researchers, clinicians, and administrators from VT, Carilion Clinic, and other Universities and hospital systems. Event was designed after the success of the Health Analytics Summit 2018 sponsored by University Libraries that I lead and organized. Organized a full report and post-event evaluation with transcripts of each session as to be useful for those that could not attend and be a record of the event. [LINK]
2017-present	**Member, VT Department of Biochemistry Curriculum Committee** Organized planning session strategize and revamp curriculum on a 5-year plan and integrate more technologies into the curriculum, contribute to curriculum changes and updates, review new course approvals, and contribute to pedagogical discussion on student learning.
2017-2018	**Member, HST Educational Space Building Committee.** With fellow library colleagues, advocated for library space and utilization in the new Roanoke campus building. Worked to develop planning ideas for space utilization and continue to follow-up as new phases of the project proceed.
2017-2018	**Member, VT Adaptive Brain and Behavior Curriculum Committee** Served on committee to evaluate and determine courses to fit a ABB Pathway minor.
2016-2019	**BioactiVT Faculty Advisor** Mentored 3-5 student per semester for credit on bioinformatics focused project of their choosing. Supported their research in cell printing technologies and good leadership practices.
2016-2018	**Member, VT Adaptive Brain and Behavior Faculty Design Team** Attended meetings and provided feedback/insight into what ABB looks like at Virginia Tech.
2012 – 2016	**Director, Graduate-Undergraduate Mentorship Program** Organized, ran, fundraised for, and evaluated the transdisciplinary mentorship program and handed it off after my service.
2014, 2015	**Mentor, Virginia Tech CALS – Uniondale High School Summer Research Program** Mentored two high school students who presented at local, regional, and national science fairs.
2014, 2017	**Session Chair, Molecular Biophysics Symposium, Virginia Tech** Organized speakers, maintained time, introduced speakers during symposium.
2014-2015	**Member, Biochemistry Department Head Search Committee** Review applications, interview, and aid in selection of candidate.

INTERNAL COMMITTEE SERVICE

2021-present	Text Data Mining Stakeholders Committee
2018-2022	Member, Continued Appointment Track Faculty Affairs Committee (CATFAC)
2021	Member, Head, VTCSOM Library Search Committee
2017, 2018	University Libraries Digital Literacy Symposium planning committee Planned, contributed, and attended symposium in November 2017, April 2019.
2018	Organizer and developer of Health Analytics Summit 2018 supported by University Libraries and attended by 97 individuals. [Link to report]
2017-2020	Member, Open Knowledge Committee
2017	Open Data Week planning committee. Collaborated on text and data mining workshop development and execution.
2017	Member, Open Education Week Committee. Assisted in planning and hosting postcard activity to provide student comments to administrators.
2017	Member, Health Sciences Librarian Search Committee Review applications, interview, and aid in selection of candidate.

2016-present   Member, Library Faculty Association
2016-present   Member, University Libraries Social Committee
2016-present   Member, SciTech Committee

PROFESSIONAL DEVELOPMENT

Year	Training
2022	Adult Mental Health First Aid [LINK]
2021-2022	R in Education and Assessment of Learning (REAL) network participant [LINK]
2021	The Inclusive STEM Teaching Project [LINK]
2021	Inclusive STEM Teaching Facilitator [LINK]
2021	Getting Started with Online Teaching Certificate - VT Technology-enhanced Learning and Online Strategies
2020	IAAP Certified Professional in Accessibility Core Competencies (CPACC) Certification [LINK]
2020	Diversity: Inclusion in the Modern Workplace [LINK]
2020	Ally Quick Start for Instructors – Improving Canvas Accessibility [LINK]
2020	Software Carpentries Instructor Certification [LINK]
2020	InclusiveVT Creating an Inclusive Workplace Badge [LINK] Creating an Inclusive Workplace is for anyone who manages a program or facility with supervisory responsibilities. The purpose of the course is to recommend strategies and best practices for creating workplaces that are welcoming, affirming, safe, and accessible.
2020	Virginia Tech SIRC (Scholarly Integrity and Research Compliance) Investigator Series [LINK]
2020	CITI IRB Members Basic Course [LINK]
2019	Preparing to Teach at a Distance with Course Development Consultation As part of a summer course redesign and distance learning program with PDN, Amanda and Anne redesigned the Intro to Research Practices course and received a Quality Matters designation demonstrating its high quality for online teaching and accessibility. [LINK]
2019	Inclusive Pedagogy Digital Badge [LINK] This year-long cohort course introduces participants to the core principles of inclusive pedagogy: facilitating respect and hospitality for all, creating an environment where everyone learns, and fostering cultural competence; and then provides an inclusive teaching rubric with specific standards for measuring how inclusive your teaching may be.
2019	Recovery Ally Training [LINK]
2019	American Chemical Society Reviewer Lab Training [LINK]
2019	Virginia Tech Principals of Effective Teaching Certificate [LINK]
2019	CITI Basic Responsible Conduct of Research, Biomedical Research, Research Conflict of Interest [LINK]
2017, 2020	Safe Zone Training

GRADUATE STUDENT ADVISING   TOTAL : 11 DEGREES

Year(s)	Thesis Student	Program, Degree	Thesis Topic
08/18-05/20	Amanda Sharp	Life Sciences, M.S.	Kinases in Drug Discovery
05/19-05/20	Elisa Gagliano	Life Sciences, M.S.	Bioinformatics of Radical SAM Enzymes
08/19-05/21	Kelsie King	Life Sciences, M.S.	Amyloid Inhibitors
08/19-12/21	Daniel Chen	Genetics, Bioinformatics, & Computational Biology, Ph.D.	Data Science Education for Biomedical and Health Sciences
05/20-present	Amanda Sharp	Genetics, Bioinformatics, & Computational Biology, Ph.D.	Targeting and Drugging Difficult Protein Interfaces
05/20-05/22	Erin Collins	Life Sciences, M.S.	Screening Databases for Active and Decoy Drugs to Target Nuclear Receptors
11/21-05/22	Korliss Brit	Life Sciences, M.S.	HIV gp41 MD Simulations
05/21-present	Jay Ramos	Biology, M.S. *co-advisor	In Silico Exploration of Inhibitors of the Type IV Pilus Extension Protein PilB in Clostridioides difficile
05/21-present	Kelsie King	Genetics, Bioinformatics,& Computational Biology, Ph.D.	Biophysical Rationale for Amyloid Protein Folding
05/21-present	Truitt Elliott	Life Sciences, M.S.	HIV gp41 MD simulations
05/22-present	Erin Collins	Biochemistry, PhD.	Accessibility Accommodations in STEM Experiential Learning

THESIS COMMITTEE SERVICE   TOTAL: 13

Year(s)	Thesis Student	Program, Degree	Thesis Advisor
05/17-05/21	Hannah Valentino	Biochemistry, Ph.D.	Dr. P. Sobrado
08/18-05/19	Alexander Tolbert	Life Sciences, M.S.	Dr. G. Gillaspy
05/18-05/21	Alexa Salsbury	Biochemistry, Ph.D.	Dr. J.A. Lemkul
05/18-05/22	Darcy Davidson	Biochemistry, Ph.D.	Dr. J.A. Lemkul
08/19-05/22	Didier Mena	Biochemistry, Ph.D.	Dr. R. Helm
05/20-present	Julia Montgomery	Biochemistry, Ph.D.	Dr. J.A. Lemkul
05/20-07/22	Justin McKinney	Biochemistry, M.S.	Dr. K.D. Allen
05/20-05/21	Alex Corrigan	Biochemistry, M.S.	Dr. J.A. Lemkul
05/21-present	Laura Gil Pineda	Biochemistry, Ph.D.	Dr. J.A. Lemkul
05/21-present	Haley Michel	Biochemistry, Ph.D.	Dr. J.A. Lemkul

05/21-06/22	Mara Kushelman	Biochemistry, M.S.	Dr. B. Jutras
05/22-present	Marcel Shams Eddin	Biology, Ph.D.	Dr. D. Popham
05/22-present	Thuc Anh Dinh	Biochemistry, Ph.D.	Dr. K.D. Allen

UNDERGRADUATE RESEARCH MENTORING   TOTAL: 103

Year(s)	Student's Name	Major	Awards/Career Path
01/22-present	Ben Yost	Systems Biology, Biochemistry	AIS Hamlett Scholarship
01/22-present	Marion Lopresti	Biochemistry	Biochemistry Summer Research Fellowship
01/22-present	Michael Erb	Nanoscience	
01/22-present	Aaryann Bhagwat	Biochemistry	
01/22-present	Rachel Beuschel	Biochemistry	
05/21-05/22	Megan Toms	Biology	MAOP Scholar, Dennis Dean Presenter
08/21-present	Aanish Pradhan	CMDA	ACS Med Chem Cover Art, CMDA Summer Scholarship
08/21-present	Ben Kouzel	Systems Biology	
08/21-present	Kristal Hines-Pressley	Biochemistry	
08/21-present	Alexis Freilich	Biochemistry	
08/21-05/22	Ben Butler	BIT	Industry
08/21-05/22	Ishann Babbar	CMDA	Industry
01/21-05/21	Christina Tran	CMDA, Physics	Industry
01/21-05/22	Ethan Desverreaux	Biochemistry	Surgical Technician, Medical School, David R. Bevan Scholarship
01/21-present	Matthew Cagle	CMDA	Boeing Summer Fellowship
01/21-05/22	Nicholas Ball	Systems Biology	Industry
01/21-present	Hajar Zaheer	Systems Biology	AIS Hamlett Scholarship
01/21-present	Anthony Briganti	Biochemistry	VAS presentation, Summer Research Fellowship, VT Biochemistry BS/MS program
01/21-05/21	Shannon Aikens	CMDA	Industry
01/21-present	Meghana Kamineni	Medicinal Chemistry	Summer Research Fellowship
01/21-05/21	Hannah Cannon	Biochemistry	REU program Department of Chemistry at Syracuse (Summer 21)
01/21-12/21	Kevin Sandler	Industrial Systems Engineering	Graduate School
08/20-05/20	Emily Warwick	International Studies	Industry
08/20-12/20	Rajiv Patel	CMDA	Industry
08/20-present	Ian Hicklin	Biochemistry	Fralin SURF fellowship, VAS presentation, COS Outstanding Senior

08/20-present	Christa Greatorex-Potter	Biochemistry	Dennis Dean Presentation
08/20-12/21	Talib Grant	CMDA	Industry
08/20-present	Sara Gallegos	Biochemistry	HHMI Student Fellow, MAOP Scholar
08/20-06/21	Elizabeth Duncan	Statistics	Industry
08/20-05/21	Hailey Olsen	Systems Biology	Industry
05/20-05/21	Zachary Hirsch	Environmental Science	Graduate School (UNC)
01/20-12/20	Chrissi Taylor	CMDA	Industry
01/20-12/22	Yash Joshi	CMDA	Hamlett Scholarship, Industry
01/20-12/21	Lovish Sarolia	CMDA	Hamlett Scholarship, Department of Defense SMART scholarship, US Air Force Chief Data Office Premiere College Intern Program at the Pentagon, Industry
01/20-12/20	Constaintin Waldschmidt	Biochemistry	Industry
01/20-05/21	Ashley Murray	Biochemistry	
01/20-present	Victor Mukora	CMDA	National Collegiate Research Conference, Mid Atlantic Research Conference, ACC Meeting of the Minds,Undergraduate Research Presentation winner, VT Goldwater Scholar nominee
01/20-05/20	Jeamin Jung	Biology	Industry
01/20-12/21	Aaliya Merchant	CMDA	Industry
01/20-12/20	Somya Jain	CMDA	
01/20-05/22	Makhsuda Ibragimova	CMDA	Hamlett Scholarship, TechGirls TA, Industry
01/20-05/21	Mitch Dolby	Geography	DOT Summer Internship
08/19-05/22	Sophie DeSimone	Biochemistry	VAS presentation, Undergraduate Research Excellence Award
08/19-05/20	Hayden Quilty	Biochemistry	Cover Art for JMedChem
08/19-08/21	Caroline Rogers	Biochemistry	
05/19-12/20	Tanner Spicer	CMDA/CS	VT News
01/19-05/21	Allison Woods	CMDA	Industry
01/19-05/20	Ben Rayden	CMDA	Hamlett Scholarship, Industry
01/19-05/22	Caroline Schumacher	Biochemistry	Graduate School
01/19-05/21	Jason Mosier	Biology	PA School
08/18-05/21	Alexei Hernandez	Biochemistry	Industry
08/18-05/22	Truitt Elliot	Biochemistry	BS/MS program in Biochemistry, VAS presentation, TechGirls TA
08/18-05/21	Erin Collins	Biochemistry	Fralin SURF award, BS/MS program in Biochemistry, NSF GRFP Honorable Mention

01/20-05/20	Victoria French	Sustainable Biomaterials	Graduate School
08/19-05/20	Caleb Notheis	CMDA	Industry
08/19-05/20	Yartiza Ruvalcaba	Systems Biology	Industry
08/19-05/20	Taylor Ziemer	Systems Biology	Industry
08/19-05/20	Brad Polek	CMDA	Industry
01/19-12/20	Brian Stephens	CMDA	Industry
01/19-08/20	Emily Flynn	Biochemistry	Nursing School
01/19-08/20	Andrew Miller	Systems Biology	
08/18-05/20	Carter Gottschalk	Biology	Cover Art for JMedChem, Publication, Medical School
08/18-05/20	Kelsie King	Biochemistry	MS Program in Biochemistry at VT, PhD Program in GBCB
08/18-05/19	Qiao-Qiao Wang	Biochemistry	Graduate School at UCLA
08/18-05/19	Jack Thompson	Biochemistry	Industry
01/18-05/20	Sarah Tartabini	Biochemistry	Applying to Physicians Assistant School
01/18-05/19	Prattyak Mukhopadhyay	Biochemistry	AmeriCorps, medical school
08/17-5/19	Nick Cramer	Biochemistry	Research Assistant at VCU, PhD program at VCU
08/17-5/19	Ben Levy	HNFE	Medical School
08/17-05/19	Evan Richardson	Biochemistry	Medical School
08/17-05/19	Eliza Hayes	Neuroscience	Industry (government position)
08/17-05/19	Justin McKinney	Biochemistry	Ph.D. program in Biochemistry at Virginia Tech
08/17-05/18	Stephen Bartyczak	Biochemistry	Industry, senior thesis
08/17-05/18	Samantha Cornwell	Biochemistry & Psychology	Scribe program, medical school
08/17-05/18	Sean Reiter	Math	Math Teacher
08/17-05/18	Gavin Vess	BSE & CMDA	Graduate School
08/17-05/18	Eryney Marrogi	Biochemistry	Bioactivity, Research Assistant at Harvard University, Medical School, Industry
01/17-05/20	Jared Okada	System Biology, Neuroscience	Hamlett Scholarship (3x), VCOM School of Osteopathic Medicine
01/17-08/20	David Barto	Biochemistry	BlueWaters Supercomputing Fellowship, UPenn Research Assistant
01/17-08/20	Grant Kawecki	Biochemistry	Graduate School
01/17-12/18	Sean Lowney	Neuroscience	Graduate School
01/17-05/18	Chris Lee	Neuroscience	Mental Health Counseling Program
08/16-08/19	Conor Kelley	Chemistry	Georgetown Master's Program, medical school
08/15-05/18	Hytham Souid	Biochemistry	EVMS Master's Program
08/14-05/18	Joel Mushagasha	Biochemistry	Research Assistant

Dates	Name	Department	Outcome
08/14-12/17	Hannah Ricketts	Human, Nutrition, Foods, and Exercise (HNFE)	PEARC18 Best Student Paper Award, Nursing School
08/14-05/18	Creighton (Javier) Friend	Biochemistry	Ph.D. program, Biomedical Sciences at VCU
08/14-05/18	Brittney Worrell	Biochemistry	Dental School at VCU, senior thesis
08/15-08/17	Louis (Bobby) Hollingsworth	Biochemistry, Chemistry, Chemical Engineering	Ph.D. program, Biomedical Sciences, Harvard University, Outstanding Senior College of Engineering, Phi Beta Kappa, 2nd Annual Biophysical Symposium poster winner, Honors thesis
01/17-05/17	Roan Parrish	Neuroscience	Industry
01/17-05/17	Derek Messer	Computer Science	Industry
08/16-05/17	Mary Carome	Computer Science	Industry
08/16-05/17	Paulene Sapao	Biochemistry	Ph.D. program, Biomedical Sciences, VCU, senior thesis
08/14-05/17	Megan Richardson	Biochemistry	M.S. program, Virginia Tech Dept. of Biochemistry, ACC Meeting of Minds Winner, NCUR presenter, 2nd Annual Biophysical Symposium poster winner, senior thesis
08/14-05/17	Kendall Seeley	Biochemistry	NCUR presenter, senior thesis
08/16-05/17	Rebecca Engler	Chemical Engineering	Industry
01/16-05/17	Jonathan Briganti	Neuroscience	MS/MBA, Business Analytics VT, Global Health Hackathon Winner
01/16-05/17	Zuzka Han	Biochemistry	Industry
08/15-05/17	Nicholas Cipriano	Biochemistry	UNC School of Pharmacy
08/16-12/16	Brian Elliot	Electrical and Computer Engineering	Industry, Global Health Hackathon Winner
08/13-05/16	Nikolas Dimitry	Biochemistry	VCOM School of Medicine
08/13-05/15	Justine Miller	Biochemistry	VTC School of Medicine