

ALLISON N. TEGGE

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Virginia Tech, Blacksburg, VA 24061

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EDUCATION

- Ph.D. Informatics** 2008 – 2012
University of Missouri–Columbia; Columbia, Missouri
- Thesis: “Using Pathway Correlation Profiles for Understanding Biological Pathway Perturbation”
 - Advisor: Dong Xu
- M.S. Bioinformatics** 2006 – 2008
University of Illinois Urbana–Champaign; Urbana, Illinois
- Thesis: “Prediction of Neuropeptide Cleavage in Four Mammalian Species Using Artificial Neural Networks and Logistic Regression Models”
 - Advisor: Sandra Rodriguez-Zas
- B.S. Animal Sciences** 2003 – 2006
University of Illinois Urbana–Champaign; Urbana, Illinois

PROFESSIONAL EXPERIENCE

- Research Associate Professor** 2023 – present
Fralin Biomedical Research Institute at Virginia Tech Carilion
- Research Associate Professor** 2023 – present
Dept. of Statistics at Virginia Tech
- Associate Professor** 2023 – Present
Dept. of Basic Science Education at Virginia Tech Carilion School of Medicine
- Research Assistant Professor** 2016 – 2023
Dept. of Statistics at Virginia Tech
- Assistant Professor** 2016 – 2023
Dept. of Basic Science Education at Virginia Tech Carilion School of Medicine
- National Institute of Health Postdoctoral Fellow** Sep 2014 – Dec 2016
Dept. of Computer Science at Virginia Tech, Advisors: T. M. Murali, Padma Rajagopalan
- Post-doctoral Research Associate** Jan 2013 – Sep 2014
Dept. of Computer Science at Virginia Tech, Advisor: T. M. Murali
- Graduate Research Assistant** Aug 2008 – Dec 2012
Informatics Institute at University of Missouri – Columbia
- Database Programmer** May 2008 – Aug 2008
Dept. of Animal Sciences at University of Illinois Urbana – Champaign
- Graduate Research Assistant** Aug 2006 – Aug 2008
Dept. of Animal Sciences at University of Illinois Urbana – Champaign
- Undergraduate Research Assistant** Aug 2005 – Aug 2006
Dept. of Animal Sciences at University of Illinois Urbana – Champaign

HONORS AND AWARDS

- National Institute of Health F32 Fellowship** Sep 2014 – Aug 2017
- Best Bioinformatics Poster Award at Missouri Informatics Symposium** Oct 2012
- National Library of Medicine Biomedical Informatics Training Fellowship** 2008 – 2012
- Outstanding Graduate Student in MU Informatics Institute**, University of Missouri 2010
- Jonathan Baldwin Turner Scholarship**, University of Illinois Urbana – Champaign 2003 – 2006
- James Scholar**, University of Illinois Urbana – Champaign 2003 – 2005

FUNDING

Active:

- G1 NICHD: Regulation of 22q11 Genes in Embryonic and Adult Forebrain *Sep 2022 – June 2027* Total award: \$3,363,342 (Co-I 1%; PI: LaMantia)

- G2 NIDDK: Episodic Future Thinking to Improve Management of Type 2 Diabetes in Rural and Urban Patients: Remote Delivery and Outcomes Assessment to Increase Reach and Dissemination (supplement) *Aug 2022 – July 2024* Total award: \$326,776 (Co-I 7%; PI: Stein)
- G3 Indivior, Inc.: ROAD: Recovery from Opioid Use Disorder Open Access Data *Aug 2022 – Jul 2025* Total award: \$1,296,687 (PI 60%)
- G4 NIDA: Recovery from Opioid Use Disorder: subgroups, transition states, and their association with recovery outcomes *Sept 2022 – Aug 2024* Total award: \$412,898 (PI 54%)
- G5 NIDA: An Experimental Medicine Approach for the Mechanistic Understanding of Cocaine Use Disorder: Reinforcer Pathology. *Apr 2022 – Mar 2027* Total award: \$3,503,019 (Co-I 5%; MPI: Bickel, LaConte)
- G6 NCI: Experimental Tobacco Marketplace: Testing the Health Equity of Novel Tax Proposals *Jul 2022 – Jun 2027* Total award: \$3,231,870 (Co-I 10%; PI: Bickel)
- G7 NIAAA: Longitudinal Study of Recovery: Psychosocial Functioning, Relapse, and Neuro-Behavioral Markers. *Mar 2022 – Feb 2027* Total award: \$3,511,981 (Co-I 12%; PI: Bickel)
- G8 NIH-NCI: Predicting and Understanding the Use of Nicotine Products In a Rapidly Evolving Nicotine Marketplace: The International Nicotine Product, Policy, and Market (INPAM) Study (Sub-Project 3: The Experimental Tobacco Marketplace (ETM): Policy Forecasts, Novel Products, and Illegal Purchasing *Sep 2021 – July 2026* Total award: \$1,050,021 (Co-I 14%; PI: Bickel)
- G9 NIAAA: Testing reinforcer pathology: mechanism and interventions to change alcohol valuation. *Sep 2019 – Aug 2024* Total award: \$1,757,282 (Co-I 10%; MPI: Bickel, LaConte)
- G10 NIH-NCI: Consortium on Methods of Evaluating Tobacco (COMET): Filter Ventilation and Product Standards (Sub-Project ID: 5793: Project 3: The Abuse Liability and Substitution Profile of Removing Cigarette Ventilation in the Experimental Tobacco Marketplace) *Sep 2017 – Aug 2023* Total award: \$1,722,709 (Biostatistician; PI: Bickel)

Past:

- G11 VT-COS: Recovery from Opioid Use Disorder: Subgroup Identification Using Bayesian Dynamic Factor Models *Aug 2021 – July 2022* Total award: \$14,516 (PI 50%)
- G12 NIDA: E-cigarette substitution: nicotine strength as a unit price manipulation and its implications for regulation. *Aug 2018 – Jul 2022 NCE* Total award: \$442,750 (Biotatistician; PI: Stein)
- G13 NIH-NCI: Inhibition of breast cancer cell metastases using a connexin43 mimetic peptide *Jul 2020 – July 2022 NCE* Total award: \$119,906 (Co-I 10%; PI: Lamouille/Gourdie)
- G14 NCI: Evaluating How Tobacco Control Policies are Shaping the Nicotine Delivery Market (Sub-Project 8134: The Experimental Tobacco Marketplace (ETM)) *Apr 2016 – Mar 2021 NCE* Total award: \$1,877,932 (Biostatistician; PI: Bickel)
- G15 Univ. of Virginia iTHRIV (NIH Flow-thru): When can patients safely drive after rotator cuff repair? *Feb 2020 – Jan 2021* Total award: \$50,000 (Co-I; no salary support; PI: Apel)
- G16 Indivior, Inc.: Remission from Chronic Opioid Use: Study of Environmental and Socioeconomic Factors on Recovery (RECOVER-LT) *Dec 2019 – Dec 2020* Total award: \$1,750,000 (Data Analysis Core Lead, Co-I 25%; PI: Bickel)
- G17 Indivior, Inc: Buprenorphine Misuse Study *Feb 2019 – Apr 2020* Total award: \$247,241 (Biostatistician; PI: Bickel)
- G18 NIAAA: Remote alcohol monitoring to facilitate abstinence reinforcement with an underserved population. *Sep 2018 – Aug 2023* Total award: \$3,454,563 (Co-I 10%; 2% credit received prior to PI move; PI: Koffarnus)
- G19 NIAAA: Technology transfer of behavioral economic tasks for assessing alcohol reinforcer pathology: Development and feasibility of a commercially-available tool for clinical practice. *Sep 2018 – Aug 2019* Total award: \$88,199 (Biostatistician; PI: Bickel)
- G20 NIEHS: Computing hepatic intercellular communications in response to toxicant exposures. *Sep 2014 – Aug 2017* Total award: \$165,354 (PI 100%)

Under Review:

- G21 NIH-CSR: Polysubstance use: impact on recovery transition states and subgroup assignment. *Apr 2024 – Mar 2029* Total requested: \$3,275,629 (PI 53%)

G22 NIDA: Adapting and Testing Episodic Future Thinking for Smoking Cessation: Examining the Role of Generalized and Cancer-Related Content in Urban and Rural Adults. *Sep 2023 – Aug 2025* Total requested: \$422,255 (Co-I 3%; PI: Stein – 13 percentile)

In Revision:

G23 NICHD: The systems biology of human milk exosomal transcriptome: a 12-month longitudinal observational study of maternal factors and infant brain and behavioral outcomes. Total requested: \$3,810,084 (MPI 17%; MPI: Howell)

JOURNAL PUBLICATIONS:

‡ indicates supervised trainee; * indicates supervised medical student

- 1 Freitas-Lemos R[‡], Tomlinson DC[‡], Yeh Y[‡], Dwyer CL[‡], Dai H, Leventhal A, **Tegge AN**, Bickel WK (202X). 4-year prediction of COVID-19 vaccine hesitancy among US young adults: Immediacy bias mediated by vaccine beliefs and knowledge. *Accepted to Preventive Medicine Reports*.
- 2 Tomlinson DC[‡], Freitas-Lemos R[‡], **Tegge AN**, Stein JS, Bickel WK (2023). Presentation Matters: Effects of Cigarette Purchase Task Design on Systematic Data. *Experimental and Clinical Psychopharmacology*.
- 3 Freitas-Lemos R, Tegge AN, Shevorykin A, Tomlinson DC, Athamneh LN, Stein JS, Sheffer CE, Shields PG, Hatsukami DK, Bickel WK (2023). Selective reduction of socioeconomic disparities in the Experimental Tobacco Marketplace: Effects of cigarette and e-cigarette flavor restrictions. *Accepted to Nicotine and Tobacco Research*; SPECIAL ISSUE: Advancing Equity in Policies Restricting Flavors in Nicotine.
- 4 Bickel WK, Tomlinson DC[‡], Craft WH[‡], Ma M, Dwyer CL[‡], Yeh Y-H[‡], **Tegge AN**, Freitas-Lemos R, Athamneh LN (2023). Predictors of smoking cessation outcomes identified by machine learning: A systematic review. *Addiction Neuroscience*, 6(100068).
- 5 Craft WH[‡], **Tegge AN**, Dwyer CL[‡], Tomlinson DC[‡], Bickel WK (2023). Delay Discounting Variability I: Rate-dependent effects of narrative interventions in a longitudinal study of individuals who use alcohol. *Alcoholism: Clinical and Experimental Research*. <https://doi.org/10.1111/acer.15020>
- 6 Dwyer CL[‡], Craft WH[‡], **Tegge AN**, Yeh Y-H[‡], Bickel WK (2023). Utility of the 5-trial adjusting delay task in screening for high delay discounting rates: A cohort study of individuals reporting harmful alcohol and tobacco use. *Experimental and Clinical Psychopharmacology*.
- 7 Freitas-Lemos R[‡], **Tegge AN**, Athamneh LN, Yeh Y[‡], Craft WH[‡], Stein JS, Smith TT, Stepanov IS, Rees VW, Cummings KM, O'Connor RJ, Shields PG, Hatsukami DK, Bickel WK (2022). Is perception reality? Associations among light cigarettes, number of cigarettes smoked per day, and delay discounting. *Drug and Alcohol Dependence*, 109709.
- 8 Craft WH[‡], Shin H[‡], **Tegge AN**, Keith DR[‡], Athamneh LN, Stein JS, Ferreira MAR, Chilcoat HD, Le Moigne A, DeVeugh-Geiss A, Bickel WK (2022). Long-term recovery from opioid use disorder: recovery subgroups, transition states, and their association with substance use, treatment, and quality of life *Addiction*, 1 – 11.
- 9 Keith DR[‡], **Tegge AN**, Stein JS, Athamneh LN, Craft WH[‡], Chilcoat HD, Le Moigne A, DeVeugh-Geiss A, Bickel WK (2022). Struggling with recovery from opioids: Who is at risk during COVID-19? *Journal of Addiction Medicine*, 10.1097.
- 10 Freitas-Lemos R[‡], Stein JS, **Tegge AN**, Kaplan BA, Heckman BW, McNeill A, Cummings KM, Fong GT, Bickel WK (2022). The Illegal Experimental Tobacco Marketplace II: Effects of Vaping Product Bans. Findings from the 2020 International Tobacco Control Project. *Tobacco Control*, 31 (Suppl 3), s214-s222.
- 11 Badger AE*, Samuel LT, **Tegge AN**, Metrey M, Perez M, Tuttle JR, Apel PJ (2022). On the Road Again Rotator Cuff Repair Patients Can Safely Return to Driving Two Weeks Postoperatively. *Journal of Bone & Joint Surgery*, 104 (18), 1639-1648.
- 12 Keith DR[‡], **Tegge AN**, Athamneh LN, Freitas-Lemos R[‡], Tomlinson DC[‡], Craft WH[‡], Bickel WK (2022). The phenotype of recovery VIII: Association between delay discounting, recovery capital, and length of abstinence among individuals in recovery from substance use disorders. *Journal of Substance Abuse Treatment* 108783.
- 13 Freitas-Lemos R[‡], **Tegge AN**, Craft WH[‡], Tomlinson DC[‡], Stein JS, Bickel WK (2022). Understanding data quality: Instructional comprehension as a novel metric in crowdsourced investigations of behavioral economic cigarette demand. *Experimental and Clinical Psychopharmacology*, 30 (4), 415.

- 14 Craft WH[‡], **Tegge AN**, Keith DR[‡], Shin H[‡], Williams J, Athamneh LN, Stein JS, Chilcoat HD, Le Moigne A, DeVeugh-Geiss A, Bickel WK (2022). Recovery from opioid use disorder: A 4-year post-clinical trial outcomes study. *Drug and alcohol dependence*, 234:109389.
- 15 Sukumar JS, Vaughn JE, **Tegge AN**, Sardesai S, Lustberg M, Stein J (2022). Delay Discounting as a Potential Therapeutic Target for Weight Loss in Breast Cancer Survivors. *Cancers*, 14(5):1134.
- 16 Freitas-Lemos R[‡], **Tegge AN**, Stein JS, DeHart WB, Reisinger SA, Shields PG, Hatsukami DK, Bickel WK (2022). The experimental tobacco marketplace: Effects of low-ventilated cigarette exposure. *Addictive behaviors*, 125:107160.
- 17 Craft WH[‡], **Tegge AN**, Freitas-Lemos R[‡], Tomlinson DC[‡], Bickel WK (2022). Are poor quality data just random responses?: A crowdsourced study of delay discounting in alcohol use disorder. *Experimental and Clinical Psychopharmacology*, <https://doi.org/10.1037/pha0000549>.
- 18 Freitas-Lemos R[‡], **Tegge AN**, Athamneh LN, Tomlinson DC[‡], Stein JS, Bickel WK (2022). Narrative theory V: Narratives about penalties resulting from illegal tobacco purchases increase psychological distress. *Experimental and Clinical Psychopharmacology*, <https://doi.org/10.1037/pha0000551>.
- 19 Craft WH[‡], **Tegge AN**, Athamneh LN, Tomlinson DC[‡], Freitas-Lemos R[‡], Bickel WK (2022). The phenotype of recovery VII: Delay discounting mediates the relationship between time in recovery and recovery progress. *Journal of Substance Abuse Treatment*, 136, 108665. <https://doi.org/10.1016/j.jsat.2021.108665>.
- 20 Bickel WK, Freitas-Lemos R[‡], **Tegge AN**, Tomlinson DC[‡], Epstein LH (2021). Behavioral economic cigarette demand among individuals who smoke with and without obesity. *Health Psychology*, 40 (10), 666.
- 21 Craft WH[‡], **Tegge AN**, Bickel WK (2021). Narrative Theory IV: Within-subject effects of active and control scarcity narratives on delay discounting in alcohol use disorder. *Experimental and Clinical Psychopharmacology*, <https://doi.org/10.1037/pha0000478>.
- 22 Craft WH[‡], **Tegge AN**, Bickel WK (2021). Chronic Pain and COVID-19: The Association of Delay Discounting with Perceived Stress and Pain Severity. *Experimental and Clinical Psychopharmacology*.
- 23 Freitas-Lemos R[‡], Keith DR[‡], **Tegge AN**, Stein JS, Cummings KM, Bickel WK (2021). Estimating the Impact of Tobacco Parity and Harm Reduction Tax Proposals Using the Experimental Tobacco Marketplace. *International Journal of Environmental Research and Public Health*. 18 (15), 7835.
- 24 Ceci A, Munoz-Ballester C, **Tegge AN**, Brown KL, Umans RA, Michel FM, Patel D, Tewari B, Martin J, Alcoreza O, Maynard T, Martinez-Martinez D, Bordwine P, Bissell N, Friedlander MJ, Sontheimer H, Finkelstein CV (2021). Development and Implementation of a scalable and versatile test for COVID-19 diagnostics in rural communities. *Nature Communications.*, 12, 4400.
- 25 Freitas-Lemos R[‡], Stein JS, **Tegge AN**, Kaplan BA, Heckman BW, Cummings KM, Bickel WK (2021). The Illegal Experimental Tobacco Marketplace I: Effects of Vaping Product Bans. *Nicotine & Tobacco Research*. 23(10), 1744–1753.
- 26 Satyal MK, Basso JC, **Tegge AN**, Metpally AR, Bickel WK (2021). A Novel Model of Obesity Prediction: Neurobehaviors as Targets for Treatment. *Behavioral Neuroscience*, 135(3), 426-442.
- 27 Freitas-Lemos R[‡], Stein JS, Pope DA, Brown J, Feinstein M, Stamborski KM, **Tegge AN**, Heckman BW, Bickel WK (2021). E-liquid purchase as a function of workplace restriction in the experimental tobacco marketplace. *Experimental and Clinical Psychopharmacology*, pre-print: <https://doi.org/10.1037/pha0000444>
- 28 Craft WH[‡], **Tegge AN**, Bickel WK (2020). Episodic future thinking reduces chronic pain severity: a proof of concept study. *Drug and Alcohol Dependence*, 215, 108250.
- 29 Tomlinson DC[‡], **Tegge AN**, Athamneh LN, Bickel WK (2020). The phenotype of recovery IV: Delay discounting predicts perceived stress and a chance locus of control in individuals in recovery from substance use disorders. *Addict Behav Rep*, Nov 28;12:100320.
- 30 Hoeker G, James C, **Tegge AN**, Gourdie R, Smyth J, Poelzing S (2020). Attenuating loss of cardiac conduction during no-flow ischemia through changes in perfusate sodium and calcium (2020). *AJP – Heart and Circulatory Physiology*, 319(2), H396-H409.
- 31 Bickel WK, **Tegge AN**, Carr KA, Epstein LH (2020). Reinforcer pathology’s alternative reinforcer hypothesis: a preliminary examination (2020). *Health Psychology*, pre-print: <https://doi.org/10.1037/hea0001031>

- 32 Orfield NJT, Badger AE*, **Tegge AN**, Davoodi M, Perez MA, Apel PJ (2020). Modeled wide-awake, local-anesthetic, no-tourniquet surgical procedures do not impair diving fitness: an experimental on-road noninferiority study. *The Journal of Bone & Joint Surgery*, 102 (18), 1616–1622.
- 33 Walker BS*, Collier BR, **Tegge AN**, Lollar DI, Bower KL, Faulks ER, Gillen JN, Matos MA, Nussbaum MS, Hamill ME (2020). Trauma outreach to primary care physicians regarding the risks associated with beers criteria medications in geriatric patients. *The American Surgeon*, Aug 19:3134820942175.
- 34 Plaster AL*, Faulks ER, Gillen JN, **Tegge AN**, Matos MA, Lollar Di, Bower KL, Nussbaum MS, Collier BR, Hamill ME (2020). Different perceptions exist between health care providers and the general population regarding the importance of findings on additional imaging for trauma consults. *The American Surgeon*, 87 (7), 830–836.
- 35 Sheffer CE, Stein JS, Petrucci C, Mahoney MC, Johnson S, Giesie P, Carl E, Krupski L, **Tegge AN**, Reid ME, Bickel WK, Hyland A (2020). Tobacco Dependence Treatment in Oncology: Initial Patient Clinical Characteristics and Outcomes from Roswell Park Comprehensive Cancer Center. *International Journal of Environmental Research and Public Health*, 17 (11), 3907.
- 36 Maerz AH, Walker BS*, Collier BR, **Tegge AN**, Faulks ER, Bower KL, Nussbaum MS, Lollar DI, Hamill ME (2019). The Beers criteria: Not just for geriatrics anymore? Analysis of Beers criteria medications in nongeriatric trauma patients and their association with falls. *Journal of trauma and acute care surgery* 87 (1), 147–152.
- 37 Phung QH*, Snider SE, **Tegge AN**, Bickel WK (2019). Willing to work but not to wait: Individuals with greater alcohol use disorder show increased delay discounting across commodities and less effort discounting for alcohol. *Alcoholism: Clinical and Experimental Research*. 43 (5), 927–936.
- 38 Velasco MX, Kostı A, Guardia GA, Santos MC, **Tegge AN**, Qiao M, Correa RS, Hernandez G, Kokovay E, Galante PAF, Penalva LOF (2019). Antagonism between the RNA-binding protein Musashi1 and miR-137 and its potential impact on neurogenesis and glioblastoma development. *RNA*, 25 (7), 768–782.
- 39 Coughlin LN[‡], **Tegge AN**, Sheffer CE, Bickel WK (2018). A machine-learning approach to predicting smoking cessation treatment outcomes. *Nicotine & Tobacco Research*, 22 (3), 415–422.
- 40 Duffy RA*, Foroozesh MB, Loffin RD, Ie SR, Icard BL, **Tegge AN**, Nogueira JR, Kuehl DR, Smith DC, Loschner AL (2018). Normal saline versus NormosolTM-R in sepsis resuscitation: A retrospective cohort study. *J. Intensive Care Soc.*, doi:1751143718786113.
- 41 **Tegge AN**, Rodrigues RR[‡], Larkin AL, Murali TM, Rajagopalan P (2018). “Transcriptomic analysis of hepatic cells in multicellular organotypic liver models.” *Scientific Reports*, 8 (1), 11306.
- 42 Stein JS, **Tegge AN**, Turner JK, Bickel WK (2018). Episodic future thinking reduces delay discounting and cigarette demand: an investigation of the good-subject effect. *Journal of Behavioral Medicine*, 41 (2), 269–276.
- 43 Moody LN[‡], **Tegge AN**, Poe LM, Koffarnus MN, Bickel WK (2018). “To drink or to drink less? Distinguishing between effects of implementation intentions on decisions to drink and how much to drink in treatment-seeking individuals with alcohol use disorder.” *Addictive Behaviors*, 83, 64–71.
- 44 Bharadwaj A, Singh DP, Ritz A, **Tegge AN**, Poirel CL, Kraikivski P, ..., Murali TM (2017). “GraphSpace: stimulating interdisciplinary collaborations in network biology.” *Bioinformatics*, 33(19), 3134–3136.
- 45 Moody LN[‡], **Tegge AN**, Bickel WK (2017). “Cross-Commodity Delay Discounting of Alcohol and Money in Alcohol Users.” *Psychological Record*, 67(2), 285–292.
- 46 Sam SA*, Teel J*, **Tegge AN***, Bharadwaj A, Murali TM (2017). “XTalkDB: a database of signaling pathway crosstalk.” *Nucleic Acids Research (Database Issue)*, to appear. * co-first authors.
- 47 Ritz A, Poirel CL, **Tegge AN**, Sharp N, Powell A, Simmons K, Kale S, Murali TM (2016). “Pathways on Demand: Automated Reconstruction of Human Signaling Networks.” *npj: Systems Biology and Applications*, a Nature Partner Journal, 2, Article number 16002.
- 48 **Tegge AN**, Sharp N, Murali TM (2016). “XTalk: a path-based approach to identifying crosstalk between signaling pathways.” *Bioinformatics*, 32(2), 242–251.
- 49 Santos MCT*, **Tegge AN***, Correa BRS, Mahesula S, Kohnke LQ, Qiao M, Ferreira MAR, Kokovay E, Penalva LOF (2016). “miR-124, -128 and -137 orchestrate neural differentiation by acting on overlapping gene sets containing a highly connected transcription factor network.” *Stem Cells*, 34, 220–232. * co-first authors.

- 50 Cui S, Guha S, Ferreira MAR, **Tegge AN** (2015). “hmmSeq: A Hidden Markov Model for Detecting Differentially Expressed Genes from RNA-Seq Data.” *Annals of Applied Statistics*, 9, 901–925.
- 51 Ritz A*, **Tegge AN***, Kim H, Poirel CL, Murali TM (2014). “Signaling Hypergraphs.” *Trends in Biotechnology*, 32(7), 356–362. * co-first authors.
- 52 **Tegge AN**, Caldwell CW, Xu D (2012). “Pathway Correlation Profile of Gene-Gene Co-expression for Identifying Pathway Perturbation.” *PLoS One*, 7(12), e52127.
- 53 Cheng J, Wang Z, **Tegge AN**, Eickholt J (2009). “Prediction of Global and Local Quality of CASP8 Models by MULTICOM series.” *Proteins*, 77, 181–184.
- 54 **Tegge AN**, Wang Z, Eickholt J, Cheng J (2009). “NNcon: Improved Protein Contact Map Prediction Using 2D-Recursive Neural Networks.” *Nucleic Acids Research*, 37, w515–w518.
- 55 Wang Z, **Tegge AN**, Cheng J (2009). “Evaluating the Absolute Quality of a Single Protein Model Using Support Vector Machines and Structural Features.” *Proteins*, 75(3), 638–647.
- 56 Cheng J, **Tegge AN**, Baldi P (2008). “Machine Learning Methods for Protein Structure Prediction.” *IEEE Reviews in Biomedical Engineering*, 1, 41–49.
- 57 **Tegge AN**, Southey BR, Sweedler JV, Rodriguez-Zas SL (2008). “Comparative Analysis of Neuropeptide Cleavage Sites in Human, Mouse, Rat, and Cattle.” *Mammalian Genome*, 19(2), 106–120.

CONFERENCE PUBLICATIONS

- 58 **Tegge AN**, Rodriguez-Zas SL, Sweedler JV, Southey BR (2007). “Comparative Analysis of Binary Logistic Regression to Artificial Neural Networks in Predicting Precursor Sequence Cleavage.” *Bioinformatics and Biomedicine Workshops*, 101–108.
- 59 **Tegge AN**, Rodriguez-Zas SL, Southey BR (2007). “Binary Logistic Regression Modeling of Precursor Sequence Cleavage.” *Proceedings of the American Statistical Association*, Biometrics Section [CD-ROM], Alexandria, VA. American Statistical Association, 389–393.

BOOK CHAPTERS

- 60 **Tegge AN**, Wang Z, Cheng J (2010). “Integrative Protein Fold Recognition by Alignments and Machine Learning.” *Protein Structure Prediction: Method and Algorithms.*, vol. 12, Wiley.
- 61 **Tegge AN**, Rodriguez-Zas SL, Sweedler JV, Southey BR (2007). “Enhanced Prediction of Cleavage in Bovine Precursor Sequences.” *Bioinformatics Research and Applications*. Springer Berlin Heidelberg, 350–360.

SUBMITTED

- 62 Dwyer CL, **Tegge AN**, Craft WH, Tomlinson DC, Athamneh LN, Bickel WK. The phenotype of recovery X: Regulatory flexibility mediates the relationship between delay discounting and remission from substance use disorder *Under review at Psychology of Addictive Behaviors*.
- 63 Freitas-Lemos R[‡], **Tegge AN**, Tomlinson DC[‡], Stein JS, Bickel WK. Effects of a Menthol Cigarette Ban on Product Purchasing in the Legal and Illegal Experimental Tobacco Marketplace *Under review at Nicotine & Tobacco Research*.
- 64 Yeh YH[‡], Freitas-Lemos R[‡], **Tegge AN**, Myerson J, Green L, Bickel WK (202X). Evaluation of Different Approaches for Missing Data Imputation for the 21- and 27-item Monetary Choice Questionnaire. *Under review at Perspectives on Behavior Science*.
- 65 Choi J*, Masters S*, Patel RT*, Cleary L, Karimian N, Peterson S, Shvygin , Nelson M, Callahane C, Wattsman TA, **Tegge AN**, Borowicz V. Pediatric Pain Management: One Size Does Not Fit All When Examining Opioid Prescribing Patterns *Under review at Pediatrics*.
- 66 **Tegge AN**, Tomlinson DC[‡], Pope DA, Bhandaria S, Crawford J, Franck CT, Chandrasekar P, Fox EA, Reese RC, Koffarnus MN, Bickel WK. The role of homophily in driving activities among neighbors in a social network. *Under review at PLoS One*

IN PREPARATION

- 67 Shin H[‡], Ferreira MAR, **Tegge AN** (202X). Bayesian Factor Clustering Models.

- 68 Freitas-Lemos R[‡], **Tegge AN**, Stein JS, Shields PG, Hatsukami DK, Bickel WK (202X). Graphic images for Cigarette Packs: Effects on cigarette purchase and ventilation status.
- 69 Freitas-Lemos R[‡], **Tegge AN**, Stein JS, Shields PG, Hatsukami DK, Bickel WK (202X). Cigarette and E-Cigarette flavors regulation: Effects on tobacco purchase and ventilation status
- 70 Freitas-Lemos R[‡], **Tegge AN**, Yeh Y[‡], Tomlinson DC[‡], Stein JS, Shields PG, Hatsukami DK, Bickel WK (202X). Effects of a Menthol Cigarette Ban on Product Purchasing in the Legal and Illegal Experimental Tobacco Marketplace
- 71 Freitas-Lemos R[‡], **Tegge AN**, Smith TT, Stein JS, Cummings KM, Bickel WK (202X). Effects of Cigarette and E-Cigarette flavors on Substitutability in the Experimental Tobacco Marketplace
- 72 Tomlinson DC[‡], Freitas-Lemos R[‡], Athamneh LN, **Tegge AN**, Bickel WK (202X). Reinforcer Pathology's Anhedonia Hypothesis: an examination among those in recovery from substance use disorders.
- 73 Tomlinson DC[‡], **Tegge AN**, Craft WH[‡], Freitas-Lemos R[‡], Athamneh LN, Dwyer CL[‡], Bickel WK (202X). The Phenotype of Recovery: Coping with Stress Among Individuals in Recovery from Substance Use Disorders.

INTERNATIONAL INVITED PRESENTATIONS

- P1 **Long-term recovery from Opioid Use Disorder: Recovery profiles and transition states** *Indivior, Inc. Townhall*, Online. November 2021. (Invited; International)
- P2 **Bayesian analysis for multi-subject time course gene expression with an application to vaccine immune response.** *CFE-CMStatistics*, Online. December 2020. (Invited; International)
- P3 **Bayesian analysis for multi-subject time course RNA-seq experiments.** *2016 International Conference on Statistical Distributions and Applications*, Niagara Falls, Ontario, Canada. Oct 2016. (Invited; International)

INTERNATIONAL PRESENTATIONS

- P4 **Struggling with recovery from opioids: Who is at risk during COVID-19?** *Canadian Society of Addiction Medicine*, Online. October 2021. (International)
- P5 **Bayesian analysis for multi-subject time course RNA-seq experiments.** *60th ISI World Statistics Congress*, Rio de Janeiro, Brazil. July 2015. (International)

INVITED US PRESENTATIONS

- P6 **Statistical Methods for Subgroup Identification: an Application to Opioid Use Disorder Recovery.** *College on Problems of Drug Dependence*, Minneapolis, Minnesota. June 2022. (Invited)
- P7 **Bayesian Analysis for Multi-Subject Time Course RNA-Seq Experiments.** *Southern Regional Council on Statistics*, Virginia Beach, Virginia, USA. June 2018. (Invited)
- P8 **Missouri Informatics Institute Alumni Panel Discussion.** *Missouri Informatics Symposium*, Columbia, Missouri, USA. April 2018. (Invited)
- P9 **A computational approach to the identification of pathway crosstalk.** *The Virginia Tech Carilion School of Medicine and Research Institute*, Roanoke, Virginia, USA. Oct 2016. (Invited)

US PRESENTATIONS

- P10 **Struggling with recovery from opioids: Who is at risk during COVID-19?** *College on Problems of Drug Dependence*, Online. June 2021.
- P11 **Bayesian Analysis for Multi-Subject Time Course RNA-Seq Experiments .** *2017 Joint Statistical Meeting*, Baltimore, Maryland, USA. Aug 2017.
- P12 **XTalk: a path-based approach to identifying pathway crosstalk.** *2016 Joint Statistical Meeting*, Chicago, Illinois, USA. July 2016.
- P13 **Using *in vitro* liver models to study hepatic intercellular signaling.** *Second Annual Regenerative Medicine IGEP Retreat*, Regenerative Medicine IGEP, Virginia Tech. May 2015.
- P14 **XTalk: a path-based approach to identifying pathway crosstalk.** *Department Seminar*, Department of Statistics, Virginia Tech. March 2014.

- P15 **Pathway Analysis of ToxCast Data.** *Workshop on Computational Toxicology*, Institute for Critical Technology and Applied Science, Virginia Tech. September 2013.
- P16 **Pathway Correlation Profile of Gene-Gene Co-Expression for Identifying Pathway Perturbation.** *National Library of Medicine Informatics Training Conference*, Madison, Wisconsin. June 2012.
- P17 **A Pathway Based Correlation Method for Identifying Perturbation in Follicular Lymphoma from Microarray Gene Expression Data.** *National Library of Medicine Informatics Training Conference*, Denver, Colorado. June 2010.
- P18 **Integrative Protein Fold Recognition by Alignment and Machine Learning.** *National Library of Medicine Informatics Training Conference*, Portland, Oregon. June 2009.
- P19 **Comparative Analysis of Binary Logistic Regression to Artificial Neural Networks in Predicting Precursor Sequence Cleavage.** *Bioinformatics and Biomedicine Workshops*, San Jose, California. November 2007.
- P20 **Enhanced Prediction of Cleavage in Bovine Precursor Sequences.** *Third International Symposium on Bioinformatics Research and Applications*, Atlanta, Georgia. May 2007.

POSTERS

Note: only posters I have presented are listed below

- P21 **Tegge AN**, Craft WH[‡], Shin H[‡], Keith DR[‡], Athamneh LN, Stein JS, Ferreira MAR, Chilcoat HD, Le Moigne A, DeVeaugh-Geiss A, Bickel WK. Long-term recovery from opioid use disorder: identification of recovery profiles and their association with opioid use, treatment, and quality of life. *College on Problems in Drug Dependence*, Minneapolis, Minnesota, June 2022.
- P22 **Tegge AN**. “DNA methylation levels as a biomarker for severity of opioid use.” NIDA Genetics Consortium Meeting, NIDA, Bethesda, MD. January 2018.
- P23 **Tegge AN**, Caldwell CW, Xu D. “Pathway Correlation Profiles for the Identification of Pathway Perturbation.” *International Conference on Intelligent Systems for Molecular Biology*, Long Beach, California. July 2012.
- P24 **Tegge AN**, Xu D, Caldwell CW. “Interpreting Discordant Results Between Two Diagnosis-Relapse Datasets.” *National Library of Medicine Informatics Training Conference*, Bethesda, Maryland. June 2011.
- P25 **Tegge AN**, Arthur G, Bennett L, Caldwell CW, Xu D, Cheng J. “A Pathway Based Correlation Method for Identifying Perturbation in Follicular Lymphoma from Microarray Gene Expression Data.” *International Conference on Intelligent Systems for Molecular Biology*, Boston, Massachusetts. July 2010.
- P26 **Tegge AN**, Wang Z, Deng X, Compani B, Su T, Chang I, Shapiro B, Vaughn MW, Cheng J, Mjolsness E. “Sigmoid: A Visualization, Simulation and Retrieval Tool for Biological Networks and Systems Biology.” *Pacific Symposium on Biocomputing*, Big Island, Hawaii. January 2009.
- P27 **Tegge AN**, Rodriguez-Zas SL, Southey BR. “Binary logistic regression modeling of precursor sequence cleavage.” *Institute for Genomic Biology Symposium*, Urbana, IL. October 2008.
- P28 **Tegge AN**, Rodriguez-Zas SL, Southey BR. “Binary logistic regression modeling of precursor sequence cleavage.” *Joint Statistical Meeting of the American Statistical Association*, Salt Lake City, Utah. July 2007.
- P29 **Tegge AN**, Southey BR, Andinet A, Sweedler JV, Rodriguez-Zas SL. “Bioinformatics analysis of bovine neuropeptides.” *American Dairy Science Association/American Society of Animal Science Joint Annual Meeting*, Minneapolis, Minnesota. July 2006.

TEACHING

Statistics Textbook Club <i>Virginia Tech</i>	<i>Summer 2021–present</i>
TBMH 5984: SS – Translational Statistics <i>Virginia Tech</i>	<i>Fall 2019</i>
STAT 2984: SS – Statistical Programming I <i>Virginia Tech</i>	<i>Spring 2018</i>
Biostatistics	<i>Fall 2017 – present</i>

Virginia Tech Carilion School of Medicine

STAT 5674: Methods in Biostatistics

Fall 2015, 2016

Virginia Tech

Howard Hughes Medical Institute Summer Biomedical Informatics Institute

May 2011, 2012

University of Missouri Columbia

Guest lecture on epigenetics biological and computational methodologies.

INFOINST 7005: Introduction to Bioinformatics

Spring 2010, 2011, 2012

University of Missouri Columbia

Guest lecture on microarray analysis.

ANSC 542: Applied Bioinformatics

Spring 2009

University of Illinois Urbana-Champaign

Guest lectures on biology related databases, graded homework, and answered student's questions.

STUDENT ADVISING

Department of Statistics Meriem Touami (MA candidate)

Jan 2023 – May 2023

Tsering Dolkar (PhD candidate, Co-advised with MAR Ferreira)

Jun 2022 – present

Peter Garafola (MA candidate)

Jan 2022 – August 2022

Hwasoo Shin (PhD candidate, Co-advised with MAR Ferreira)

Jan 2021 – present

VTC School of Medicine

Navin Jayaswal (MD candidate)

Jan 2022 – present

STUDENT MENTORING

Postdoctoral Researchers

Diana Keith, PhD

Jan 2020 – Oct 2021

Roberta Freitas-Lemos, PhD

Jun 2019 – Jun 2023

Yu-Hua Ye, PhD

Aug 2021 – present

Graduate Students

Fatima Quddos, Translational Biology, Medicine, and Health

Aug 2022 – present

Candice Dwyer, Clinical Psychology

May 2021 – present

Devin Tomlinson, Translational Biology, Medicine, and Health

Aug 2018 – present

William Craft, Translational Biology, Medicine, and Health

Aug 2018 – present

Lara Coughlin (nee Moody), Clinical Psychology

Jan 2017 – May 2018

Richard Rodrigues, Genetics, Bioinformatics and Computational Biology

Apr 2013 – Feb 2014

Medical Students at VTC School of Medicine

All medical students are required to complete research through the Research Domain. I provide statistical support for projects that need assistance. Full list of students available upon request.

Dec 2016 – present

Undergraduate Students

Zorian Thorton

Aug 2018 – Jul 2019

Joelle Teel

May 2015 – May 2016

Sarah Sam

Sep 2014 – Aug 2016

Peter Burnham

Apr 2013 – Jun 2015

STUDENT COMMITTEE MEMBERSHIP

Jacob Williams, Department of Statistics

Graduated with PhD in 2023

Amirsina Torfi, Department of Computer Science

Graduated with PhD in 2020

Candice Dwyer, Clinical Psychology Program

ongoing

Mary King, Translational Biology, Medicine, and Health

ongoing

Fatima Quddos, Translational Biology, Medicine, and Health

ongoing

Shuangshuang Xu, Department of Statistics

ongoing

INSTITUTIONAL SERVICE

Member of VT SURE Development Committee

2022 – present

Virginia Tech, Virginia Tech

Member of Research Scholarship Selection Committee

2019 – 2022

Virginia Tech Carilion School of Medicine, Virginia Tech

Member of Policy and Procedures Committee

Aug 2016 – present

Department of Statistics, Virginia Tech

President, MU Informatics Institute Graduate Student Association

Aug 2009 – May 2012

University of Missouri – Columbia

Student Member of Curriculum Committee

Aug 2010-Dec 2012

MU Informatics Institute, University of Missouri – Columbia

Student Coordinator

May 2011

Howard Hughes Medical Institute Summer Biomedical Informatics Institute, Columbia, Missouri

PROFESSIONAL SERVICE

Reviewer, International Conference on Research in Computational Molecular Biology	<i>2014</i>
Reviewer, International Conference on Intelligent Systems for Molecular Biology	<i>2014 – 2015</i>
Reviewer, ACM Conference on Bioinformatics, Computational Biology, and Health Informatics	<i>2015</i>
Reviewer, Scientific Reports	<i>2015</i>
Reviewer, IEEE Transactions on Computational Biology and Bioinformatics	<i>2016 – 2017</i>
Reviewer, BMC Bioinformatics	<i>2016</i>
Reviewer, Scientific Reports	<i>2019</i>
Reviewer, Precision Medicine	<i>2019 – present</i>
Reviewer, PLoS Computational Biology	<i>2020</i>
Reviewer, Current Eye Research	<i>2020</i>
Reviewer, Alcoholism: Clinical and Experimental Research	<i>2021 – 2022</i>
Reviewer, Drug and Alcohol Dependence	<i>2022</i>
NIH Review Panel, National Cancer Institute, National Institutes of Health, Bethesda, United States.	<i>2018 – 2019</i>
NIH Review Panel, National Institute of Drug Abuse, National Institutes of Health, Bethesda, United States.	<i>2022 – present</i>