

## *Curriculum Vitae*

**FENGQING (ZOE) ZHANG, PH.D.**

Drexel University  
3201 Chestnut Street  
Stratton Building 316  
Philadelphia, PA 19104

*Phone: 215-553-7172*

*Email: fz53@drexel.edu*

---

### **I. EDUCATION**

- 2014                      Ph.D. in Statistics  
Northwestern University, Evanston, IL
- 2010                      M.S. in Mathematics  
Middle Tennessee State University, Murfreesboro, TN
- 2008                      B.S. in Electrical Engineering  
Beihang University, Beijing, China

### **II. FACULTY/PROFESSIONAL APPOINTMENTS**

- 2020-Present            **Associate Professor**, Applied Cognitive & Brain Sciences,  
Department of Psychology, Drexel University, Philadelphia, PA
- 2017-Present            **Affiliated Faculty**, Center for Weight, Eating and Lifestyle Science,  
Drexel University, Philadelphia, PA
- 2019-2020                **President**, American Statistical Association Philadelphia Chapter
- 2018-2019                **Vice President**, American Statistical Association Philadelphia Chapter
- 2014-2020                **Assistant Professor**, Applied Cognitive & Brain Sciences,  
Department of Psychology, Drexel University, Philadelphia, PA

### **III. AWARDS AND HONORS**

- 2023                      **ASA Philadelphia Chapter Research Excellence Award**
- 2022                      **Scholarly Materials & Research Equipment Award**, Drexel University
- 2017                      **Teaching Excellence Award**, College of Arts and Sciences, Drexel University
- 2017                      **Drexel Career Development Award**, Drexel University
- 2017                      **Drexel Faculty Summer Research Award**, Drexel University
- 2013                      **Travel Fund Award**, Statistical and Applied Mathematical Sciences Institute
- 2011                      **ETD Master's Thesis Award**, Conference of Southern Graduate Schools
- 2010                      **Graduate School Fellowship**, Northwestern University
- 2010                      **Harold S. Spraker Graduate Mathematics Award**, MTSU
- 2008                      **Excellent Graduates Award**, Beijing Municipal Commission of Education
- 2005                      **Kwang-Hua Scholarship**, Kwang-Hua Education Foundation

### **IV. GRANT HISTORY**

**External Funding**

2023-2028	<i>“Wellness Achieved Through Changing Habits (WATCH): An Acceptance-Based Healthy Lifestyle Intervention for Diverse Adolescents”</i> National Institutes of Health	Role: Co-I
2022-2025	<i>“Expanding Juvenile Diversion Eligibility to Reduce Disparities and Justice Involvement: Examining Impacts of Prosecutorial Discretion Via Diversion Policy Changes in Philadelphia and Montgomery Co, PA”</i> Arnold Ventures	Role: Co-I
2021-2024	<i>“EEG-Based Brain-Age Estimation”</i> DiagnaMed, Inc	Role: Co-PI
2022-2026	<i>“Optimizing Digital Health Technologies to Improve Therapeutic Skill Use and Acquisition”</i> National Institute of Mental Health	Role: Co-I
2022-2025	<i>“Using Factorial Design to Examine Efficacies of Technology-Based Augmentations for Improving Treatment Adherence and Skills Utilization in A Self Help CBT Program for Binge Eating”</i> National Institute of Mental Health	Role: Co-I
2022-2024	<i>“Reducing School Violence and Enhancing School Safety: Implementing and Evaluating the Positive School Safety Program for School Climate Staff”</i> National Institute of Justice	Role: Co-I
2022-2025	<i>“Evaluating Outcomes of a Philadelphia Expungement Clinic Initiative”</i> The Promise/United Way of Greater Philadelphia and Southern New Jersey	Role: Co-I
2021-2026	<i>“Engaging Men in Weight Loss with A Game-Based mHealth and Neurotraining Program”</i> National Institute of Diabetes and Digestive and Kidney Diseases	Role: Co-I
2021-2026	<i>“Sharing Digital Self-Monitoring Data with Others to Enhance Long-Term Weight Loss: A Randomized Trial using a Factorial Design”</i> National Institutes of Health	Role: Co-I
2021-2026	<i>“Using Artificial Intelligence to Optimize Delivery of Weight Loss Treatment”</i> National Institute of Diabetes and Digestive and Kidney Diseases	Role: Co-I
2021-2026	<i>“Predicting Weight Regain Following Weight Loss Using Physiological Measures of Appetite and Energy Expenditure”</i> National Institutes of Health	Role: Co-I
2020-2024	<i>“Optimizing Mindfulness and Acceptance-based Treatments for Bulimia</i>	

	<i>and Binge Eating”</i>	
	National Institute of Mental Health	Role: Co-I
2020-2024	<i>“Optimizing Just-in-Time Adaptive Intervention to Improve Dietary Adherence in Behavioral Obesity Treatment: A Micro-randomized Trial”</i>	
	National Institutes of Health	Role: Co-I
2020-2022	<i>“Optimizing an mhealth Intervention to Change Food Purchasing Behaviors for Cancer Prevention”</i>	
	National Cancer Institute	Role: Co-I
2019-2024	<i>“Virtual Reality Driving and Brain Injury in the Clinic”</i>	
	National Institutes of Health	Role: Co-I
2018-2023	<i>“Improving Weight Loss Outcomes for Binge Eating Disorder”</i>	
	National Institute of Diabetes and Digestive and Kidney Diseases	Role: Co-I
2019-2022	<i>“Augmenting Cognitive Behavioral Therapy with Inhibitory Control Training”</i>	
	National Institute of Mental Health	Role: Co-I
2019-2021	<i>“Using Continuous Glucose Monitoring to Detect and Intervene on Maintenance Factors for Transdiagnostic Binge Eating Pathology”</i>	
	NIH Small Business Technology Transfer Grant	Role: Co-I
2018-2021	<i>“Using Ecological Momentary Interventions to Increase Skill Acquisition and Utilization”</i>	
	National Institute of Mental Health	Role: Co-I
2018-2021	<i>“Mindfulness-based Dance/Movement Therapy for Chronic Low Back Pain”</i>	
	National Institutes of Health	Role: Co-I
2018-2020	<i>“Using Continuous Glucose Monitoring to Detect Eating Disorder Symptoms in Bulimia Nervosa”</i>	
	Davis Foundation	Role: Co-I
2018-2020	<i>“Evaluating Impacts of the Philadelphia Police School Diversion Program: An Alternative-to-Arrest Policing Strategy ”</i>	
	National Institute of Justice	Role: Co-I
2017-2020	<i>“Long-Term Outcomes and Sustained Impact of the Philadelphia Police School Diversion Program”</i>	
	Office of Juvenile Justice and Delinquency Prevention	Role: Co-I
2017-2020	<i>“Mechanisms of Music Therapy to Palliate Pain in Patients with Advanced Cancer: A Mixed Methods Investigation”</i>	
	National Institute of Nursing Research	Role: Co-I

2017- 2020	<i>“Improving Weight Loss Maintenance by Using Digital Data Sharing to Provide Responsive Support and Accountability”</i> National Institute of Diabetes and Digestive and Kidney Diseases	Role: Co-I
2014- 2020	<i>“An Innovative, Physical Activity-Focused Approach to Weight Loss Maintenance”</i> National Institute of Diabetes and Digestive and Kidney Diseases	Role: Co-I
2017-2019	<i>“Arts-based Interventions for Socio-Emotional Well-being and Physiological Health in Contexts of Stress”</i> National Endowment for the Arts	Role: Co-I
2015-2017	<i>“Elucidating the Cognitive Underpinnings of Reading Comprehension Difficulties in Children with Down Syndrome”</i> Jerome Lejeune Foundation	Role: Co-I
2014-2015	<i>“A Companion Smartphone App to Enhance Dietary Adherence through Predictive Machine Learning”</i> The Obesity Society	Role: Co-I
<b>Internal Funding</b>		
2022-2023	<i>“Enhancing Big Data Analytics in Disease Risk Prediction and Biomarker Discovery”</i> Drexel University Scholarly Materials & Research Equipment Award	Role: PI
2021-2023	<i>“Telehealth Mindfulness-based Dance/Movement Therapy for Seniors: A Feasibility Study ”</i> Drexel University CURE Grant	Role: Co-I
2018-2019	<i>“Virtual Reality Inhibitory Control Training for Reducing Binge Eating ”</i> Drexel University CURE Grant	Role: Co-I
2017-2018	<i>“bTECH - Behavioral Technology to Enhance Changes in Health”</i> Drexel University DARE Initiative	Role: Co-I
2016-2017	<i>“Developing Machine-Learning Algorithms to Detect Affect Liability using Wearable Sensors”</i> Drexel University Clinical and Translational Research Institute	Role: Co-I
2017-2018	<i>“Big Data Approach for Assessing Multimodal Neuroimaging Signatures of Eating Disorders”</i> Drexel University Faculty Summer Research Award	Role: PI
2017-2018	<i>“Statistical Modeling for Integrating Complex Behavioral and Neuroimaging Data”</i> Drexel Career Development Award	Role: PI
2015-2016	<i>“A Smartphone App-based System to Anticipate and Prevent Lapses in Those</i>	

*Attempting to Follow a Weight Loss Diet”*  
Drexel Ventures Innovation Fund

Role: Co-I

### **NIH Training Grants**

2022-2024	<i>“Using Wearable Passive Sensing to Predict Engagement in Binge Eating in Response to Negative Affect: A Multimethod Investigation of Predictive Utility, Feasibility, and Acceptability”</i> NIH F31	Role: Statistics Mentor
2021-2026	<i>“Maximizing Online Obesity Treatment Response in the Primary Care Environment Using Clinical Decision Support”</i> NIH K23	Role: Statistics Mentor
2020-2025	<i>“Does Aberrant Decision-Making Prevent Success in Adolescent Behavioral Weight Loss Treatment”</i> NIH K23	Role: Statistics Mentor
2018-2021	<i>“Applying Novel Passive Sensing Technology to Target Adherence to Diet in Behavioral Obesity Treatment for Patients with Cardiovascular Disease Risk”</i> NIH F32	Role: Statistics Mentor
2015-2019	<i>“Addressing Weight History to Improve Behavioral Treatments for Bulimia Nervosa”</i> NIH K23	Role: Statistics Mentor
2017-2018	<i>“Novel Assessment of Affective Distress Intolerance in Binge Eating”</i> NIH F31	Role: Statistics Mentor

### **V. GRANT REVIEW EXPERIENCE**

2023	Grant Review for NIH ASPA Study Section
2021	Grant Review Panel for NSF SCALE MoDL
2019	Reviewer for Jefferson University TIPS Pilot Grants
2018	Grant Review Panel for NINDS (National Institute of Neurological Disorders and Stroke)
2018	Reviewer for NSF 17-585: Innovations in Graduate Education (IGE) Program NSF Wide Programs
2018-Present	Reviewer for Drexel Faculty Summer Research Award
2018	Reviewer for NSF 18-513: Major Research Instrumentation Program (MRI)
2016	Technology and Business Development Fund, City University of Hong Kong

## VI. PEER REVIEWED PUBLICATIONS

1. **Zhang, F.**, Chang, H., Schaefer, S. M., & Gou, J. (in press). Biological age and brain age in midlife: relationship to multimorbidity and mental health. *Neurobiology of Aging*.
2. **Zhang, F.**, Gou, J. (in press). Sample size optimization for clinical trials using graphical approaches for multiplicity adjustment. *Statistics in Medicine*.
3. Wang, Y., Zhang, J., Li, Y., Qi, S., **Zhang, F.**, Ball, L. J., & Duan, H. (2023). Preventing prefrontal dysfunction by tDCS modulates stress-induced creativity impairment in women: an fNIRS study. *Cerebral Cortex*, bhad301.
4. NeMoyer, A., Le, T., Taylor, A., Pollard, A., Kreimer, R., Anjaria, N., **Zhang, F.**, Kikuchi, G., & Goldstein, N. E. (in press). Long-term arrest and school outcomes of the Philadelphia Police School Diversion Program. *Psychology, Public Policy, and Law*.
5. Presseller, E. K., Lampe, E. W., **Zhang, F.**, Gable, P. A., Guetterman, T. C., Forman, E. M., & Juarascio, A. S. (2023). Using Wearable Passive Sensing to Predict Binge Eating in Response to Negative Affect Among Individuals With Transdiagnostic Binge Eating: Protocol for an Observational Study. *JMIR Research Protocols*, 12(1), e47098.
6. Miller, N. A., Ehmann, M. M., Hagerman, C. J., Forman, E. M., Arigo, D., Spring, B., LaFata, E.M., **Zhang, F.**, Milliron, B.J., & Butryn, M. L. (2023). Sharing digital self-monitoring data with others to enhance long-term weight loss: A randomized controlled trial. *Contemporary Clinical Trials*, 129, 107201.
7. Chesebrough, C., Chryssikou, E. G., Holyoak, K. J., **Zhang, F.**, & Kounios, J. (2023). Conceptual Change Induced by Analogical Reasoning Sparks Aha Moments. *Creativity Research Journal*, 1-23.
8. Forman, E. M., Evans, B. C., Berry, M. P., Lampe, E. W., Chwyl, C., & **Zhang, F.** (2023). Behavioral weight loss outcomes in individuals with binge-eating disorder: A meta-analysis. *Obesity*, 31(8), 1981-1995.
9. Forman, E. M., Berry, M. P., Butryn, M. L., Hagerman, C. J., Huang, Z., Juarascio, A. S., ... & **Zhang, F.** (2023). Using artificial intelligence to optimize delivery of weight loss treatment: Protocol for an efficacy and cost-effectiveness trial. *Contemporary Clinical Trials*, 124, 107029.
10. Forman, E. M., Butryn, M. L., Chwyl, C., Crane, M. M., Dart, H., Hagerman, C. J., ... & **Zhang, F.** (2023). Gamification and neurotraining to engage men in behavioral weight loss: Protocol for a factorial randomized controlled trial. *Contemporary Clinical Trials*, 124, 107010.
11. Kim, B., Niu, X., and **Zhang, F.** (2023), Functional Connectivity Strength and Topology Differences in Social Phobia Adolescents with and without ADHD Comorbidity. *Neuropsychologia*, 178, 108418

12. Williams, L. N., Wieckowski, A. T., Dieckhaus, M. F., Dai, Y. G., **Zhang, F.**, Dumont-Mathieu, T., ... & Robins, D. L. (2022). Primary Care Clinician and Child Characteristics Impacting Autism Surveillance. *Brain Sciences*, 13(1), 18.
13. Presseller, E. K., Patarinski, A. G. G., **Zhang, F.**, Page, K. A., Srivastava, P., Manasse, S. M., & Juarascio, A. S. (2022). Glucose variability: A physiological correlate of eating disorder behaviors among individuals with binge-spectrum eating disorders. *International Journal of Eating Disorders*, 55(12), 1788-1798.
14. Taylor, A., **Zhang, F.**, Niu, X., Heywood, A., Stocks, J., Feng, G., Popuri, K., Beg, M.F., Wang, L.; Alzheimer's Disease Neuroimaging Initiative (2022), Investigating the temporal pattern of neuroimaging-based brain age estimation as a biomarker for Alzheimer's Disease related neurodegeneration. *Neuroimage* 263, 119621.
15. Juarascio, A.S., Presseller, E., Trainor, C., Boda, S., Manasse, S.M., Srivastava, P., Forman, E.M., and **Zhang, F.** (2022), Optimizing Digital Health Technologies to Improve Therapeutic Skill Use and Acquisition in Binge-Spectrum Eating Disorders: Protocol for a Randomized Controlled Trial. *International Journal of Eating Disorders*.
16. **Zhang, F.**, and Gou, J. (2022), A Unified Framework for Estimation in Lognormal Models. *Journal of Business & Economic Statistics*, 40(4), 1583-1595.
17. Niu, X., Gou, J., Chang, H., Lowe, M., and **Zhang, F.** (2022), Classification model with weighted regularization to improve the reproducibility of neuroimaging signature selection. *Statistics in Medicine* 41(25), 5046-5060.
18. Niu, X., Taylor, A., Shinohara, R., Kounios, J., and **Zhang, F.** (2022), Multidimensional brain-age prediction reveals altered brain developmental trajectory in psychiatric disorders. *Cerebral Cortex* 32(22), 5036-5049.
19. **Zhang, F.**, and Gou, J. (2022), Machine learning assessment of risk factors for depression in later adulthood. *The Lancet Regional Health–Europe*, 18.
20. Goldstein, S.P., **Zhang, F.**, Klasnja, P., Hoover, A., Wing, R.R., and Thomas, J.G. (2022), Optimizing Just-in-Time Adaptive Intervention to Improve Dietary Adherence in Behavioral Obesity Treatment: Study Protocol for a Micro-randomized Trial. *JMIR Research Protocols* 10(2), e33568.
21. Butryn, M.L., Crane, N.T., Lufburrow, E., Hagerman, C.J., Forman, E.M. and **Zhang, F.** (2022), The Role of Physical Activity in Long-term Weight Loss: 36-month Results From a Randomized Controlled Trial. *Annals of Behavioral Medicine*.
22. Sala, M., Taylor, A., Crochiere, R.J., **Zhang, F.** and Forman, E.M. (2022). Application of machine learning to discover interactions predictive of dietary lapses. *Applied Psychology - Health and Well-Being*.

23. Forman, E. M., Berry, M. P., Butryn, M. L., Hagerman, C. J., Huang, Z., Juarascio, A. S., ... & **Zhang, F.** (2022). Using artificial intelligence to optimize delivery of weight loss treatment: Protocol for an efficacy and cost-effectiveness trial. *Contemporary Clinical Trials*, 107029.
24. Lowe, M., Singh, S., Apple, D.E., Mayer, L., Rosenbaum, M., Espel - Huynh, H., Thomas, J.G., Neff, K.M. and **Zhang, F.** (2022), Traditional versus developmental measures of weight suppression: Exploring their relationships with bulimic psychopathology. *European Eating Disorders Review* 30(4), 412-425.
25. Forman, E. M., Butryn, M. L., Chwyl, C., Crane, M. M., Dart, H., Hagerman, C. J., ... & **Zhang, F.** (2022). Gamification and neurotraining to engage men in behavioral weight loss: Protocol for a factorial randomized controlled trial. *Contemporary Clinical Trials*, 107010.
26. Lee, N.R., Niu, X., **Zhang, F.**, Clasen, L.S., Kozel, B.A., Smith, A., Wallace, G.L. and Raznahan, A. (2022), Variegation of autism related traits across seven neurogenetic disorders. *Translational Psychiatry* 12(1), 1-10.
27. Horgan, O.Z., Crane, N.T., Forman, E.M., Milliron, B.J., Simone, N.L., **Zhang, F.** and Butryn, M.L. (2022), Optimizing an mHealth Intervention to Change Food Purchasing Behaviors for Cancer Prevention: Protocol for a Pilot Randomized Controlled Trial. *JMIR research protocols* 11(6), p.e39669.
28. Zhu, X., Oh, Y., Chesebrough, C., **Zhang, F.**, and Kounios, J. (2022), Pre-stimulus Brain Oscillations Predict Insight Versus Analytic Problem-Solving in an Anagram Task. *Neuropsychologia* 162, 108044.
29. Hitchcock, P., Forman, E., Rothstein, N., **Zhang, F.**, Kounios, J., Niv, Y. and Sims, C. (2021), Rumination derails reinforcement learning with possible implications for ineffective behavior. *Clinical Psychological Science*, 21677026211051324.
30. Landrigan, J., **Zhang, F.**, and Mirman, D. (2021), A Data-Driven Approach to Post-Stroke Aphasia Classification and Lesion-Based Prediction. *Brain* 144(5), 1372-1383.
31. Burton Murray, H., **Zhang, F.**, Manasse, S.M., Forman, E.M., Butryn, M.L., Juarascio, A.S. (2021). Validation of the food craving acceptance and action questionnaire (FAAQ) in a weight-loss seeking sample. *Appetite* 168, 105680.
32. Crochiere, R. J., **Zhang, F.**, Juarascio, A. S., Goldstein, S. P., Thomas, J. G. & Forman, E. M. (2021). Comparing ecological momentary assessment to sensor-based approaches in predicting dietary lapse. *Translational Behavioral Medicine* 11(12), 2099-2109.
33. Goldstein, N. E. S., NeMoyer, A., Le, T., Guo, S., Cole, L. M., Pollard, A., Kreimer, R., & **Zhang, F.** (2021). Keeping kids in school through pre-arrest diversion: School disciplinary outcomes of the Philadelphia Police School Diversion Program. *Law and Human Behavior* 45(6), 497.



34. Butler, E.R., Chen, A., Ramadan, R., Le, T.T., Ruparel, K., Moore, T.M., Satterthwaite, T.D., **Zhang, F.**, Shou, H., Gur, R.C., Nichols, T.E., and Shinohara, R.T. (2021), Pitfalls in Brain Age Analyses. *Human Brain Mapping* 42(13), 4092-4101.
35. **Zhang, F.**, and Gou, J. (2021), Refined Critical Boundary with Enhanced Statistical Power for Non-Directional Two-Sided Tests in Group Sequential Designs with Multiple Endpoints. *Statistical Papers* 62(3), 1265-1290.
36. Lowe, M., Benson, L., and **Zhang, F.** (2021), Greater Within-Subject Weight Variability During Infancy Predicts Future Increases in z-BMI. *Obesity* 29(10), 1684-1688.
37. Hitchcock, P., Forman, E., Rothstein, N., **Zhang, F.**, Kounios, J., Niv, Y., Sims, C., (2021). Rumination Derails Reinforcement Learning with Possible Implications for Ineffective Behavior. *Clinical Psychological Science*.
38. Goldstein S.P., Thomas J.G., Brick L.A., **Zhang F.**, & Forman E.F. (2021). Identifying behavioral types of dietary lapse from a mobile weight loss program: Preliminary investigation from a secondary data analysis. *Appetite* 166, 105440.
39. Goldstein, N.E.S., Kreimer, R., Guo, S., Le, T., Cole, L.M., NeMoyer, A., Burke, S., Kikuchi, G., Thomas, K., and **Zhang, F.** (2021), Preventing School-Based Arrest and Recidivism Through Pre-Arrest Diversion: Outcomes of the Philadelphia Police School Diversion Program. *Law and Human Behavior* 45(2), 165.
40. Manasse, S.M., Michael, M.L., Lin, M., Gillikin, L., **Zhang, F.**, Forman, E.M., and Juarascio, A.S. (2021). Can a short screening tool discriminate between overeating and binge eating in treatment-seeking individuals with obesity? *Obesity* 29(4), 706-712.
41. Singh, S., Apple, D.E., **Zhang, F.**, Niu, X., and Lowe, M.R. (2021). A new, developmentally sensitive measure of weight suppression. *Appetite* 163, 105231.
42. Espel-Huynh, H.M., **Zhang, F.**, Thomas, J.G., Boswell, J.F., Thompson-Brenner, H., Juarascio, A.S., & Lowe, M.R. (2021). Prediction of eating disorder treatment response trajectories via machine learning does not improve performance versus a simpler regression approach. *International Journal of Eating Disorders* 54(7), 1250-1259.
43. Liu, L., Wang, F., Gracely, E.J., Moore, K., Melly, S., **Zhang, F.**, Sato, P.Y., and Eisen, H.J. (2021) Burden of Uncontrolled Hyperglycemia and Its Association with Patients Characteristics and Socioeconomic Status in Philadelphia, USA. *Health Equity* 4(1), 525-532.
44. Juarascio, A.S., Felonis, C.R., Manasse, S.M., Srivastava, P., Forman, E.M., **Zhang, F.** (2021), The project COMPASS protocol: Optimizing mindfulness and acceptance based behavioral treatment for bulimia nervosa and binge eating disorder. *International Journal of Eating Disorders* 54(3), 451-458.
45. Kerrigan, S.G., Forman, E.M., Williams, D., Patel, M., Loyka, C., **Zhang, F.**, Crosby, R.D., & Butryn, M.L. (2020). Project Step: A randomized controlled trial investigating the effects of

- frequent feedback and contingent incentives on physical activity. *Journal of Physical Activity and Health* 18(3), 247-253.
46. Murray, H.B., **Zhang, F.**, Call, C.C., Keshishian, A., Hunt, R.A., Juarascio, A.S., Thomas, J.J. (2020), Comprehensive cognitive-behavioral interventions augment diaphragmatic breathing for rumination syndrome: A proof-of-concept trial. *Digestive Diseases and Sciences* 66(10), 3461-3469.
  47. Butryn, M.L., Godfrey, K., Call, C.C., Forman, E.M., **Zhang, F.**, and Volpe, S. (2021), Promotion of physical activity during weight loss maintenance: a randomized controlled trial. *Health Psychology* 40(3), 178-187.
  48. Espel-Huynh, H., **Zhang, F.**, Boswell, J.F., Thomas, J.G., Thompson-Brenner, H., Juarascio, A.S., and Lowe, M.R. (2020), Latent trajectories of eating disorder treatment response among female patients in residential care. *International Journal of Eating Disorders* 53(10), 1647-1656.
  49. Butryn, M.L., Martinelli, M., Crane, N.T., Godfrey, K., Roberts, S.R., **Zhang, F.**, and Forman, E.M. (2020), Counselor surveillance of digital self-monitoring data: a pilot randomized controlled trial. *Obesity* 28(12), 2339-2346.
  50. Niu, X., **Zhang, F.**, Kounios, J., and Liang, H. (2020), Improved Prediction of Brain Age Using Multimodal Neuroimaging Data. *Human Brain Mapping* 41(6), 1626-1643.
  51. Oh, Y., Chesebrough, C., Erickson, B., **Zhang, F.**, and Kounios, J. (2020), An Insight-Related Neural Reward Signal. *NeuroImage* 214, 116757.
  52. Juarascio, A.S., Crochiere, R.J., Tapera, T.M., Palermo, M., and **Zhang, F.** (2020), Momentary Changes in Heart Rate Variability Can Detect Risk for Emotional Eating Episodes. *Appetite* 152, 104698.
  53. Rosen, D.S., Oh, Y., Erickson, B., **Zhang, F.**, Kim, Y., and Kounios, J. (2020), Dual-Process Contributions to Creativity in Jazz Improvisations: An SPM-EEG Study. *NeuroImage* 213, 116632.
  54. Benson, L., **Zhang, F.**, Espel-Huynh, H., Wilkinson, L., and Lowe, M.R. (2020), Weight Variability During Self-Monitored Weight Loss Predicts Future Weight Loss Outcome. *International Journal of Obesity* 44, 1360-1367.
  55. Apollonsky, N., Lerner, N., **Zhang, F.**, Raybagkar, D., Eng, J., and Tarazi, R. (2020), Laboratory Biomarkers, Cerebral Blood Flow Velocity and Intellectual Function in Children with Sickle Cell Disease. *Advances in Hematology* 2020, 9.
  56. Manasse, S.M., Lampe, E.W., Gillikin, L., Payne-Reichert, A., **Zhang, F.**, Juarascio, A.S., and Forman, E.M. (2020), The Project REBOOT Protocol: Evaluating a Personalized Inhibitory Control Training as an Adjunct to Cognitive Behavioral Therapy for Bulimia Nervosa and Binge Eating Disorders. *International Journal of Eating Disorders* 53(6), 1007-1013.

57. Espel-Huynh, H., Thompson-Brenner, H., Boswell, J.F., **Zhang, F.**, Juarascio, A.S., and Lowe, M.R. (2020). Development and Validation of a Progress Monitoring Tool Tailored for Use in Intensive Eating Disorder Treatment. *European Eating Disorders Review* 28(2), 223-236.
58. Butryn, M.L., Godfrey, K., Martinelli, M., Roberts, S.R., Forman, E.M., and **Zhang, F.** (2020), Digital Self-Monitoring: Does Adherence or Association with Outcomes Differ by Self-Monitoring Target? *Obesity Science & Practice* 6(2), 126-133.
59. Low M.Y., Lacson, C., **Zhang, F.**, Kesslick, A., and Bradt, J. (2020), Vocal Music Therapy for Chronic Pain: A Mixed Methods Feasibility Study. *Journal of Alternative and Complementary Medicine* 26(2), 113-122.
60. Kerrigan, S.G., Forman, E.M., Patel, M., Williams, D., **Zhang, F.**, Crosby, R., and Butryn, M.L. (2020), Evaluating the Feasibility, Acceptability, and Effects of Deposit Contracts with and without Daily Feedback to Promote Physical Activity. *Journal of Physical Activity & Health* 17(1), 29-36.
61. Hamner, T., Hepburn, S., **Zhang, F.**, Fidler, D., Robinson Rosenberg, C., Robins, D.L., and Lee, N.R. (2020), Cognitive and Autism Symptom Profiles in Comorbid Down Syndrome and Autism Spectrum Disorder. *Journal of Developmental & Behavioral Pediatrics* 41(3), 172-179.
62. **Zhang, F.**, and Gou, J. (2019), Control of False Positive Rates in Clusterwise fMRI Inferences. *Journal of Applied Statistics* 46(11), 1956-1972.
63. **Zhang, F.**, Wang, J.-P., Jiang, W. (2019). An Integrative Classification Model for Multiple Sclerosis Lesion Detection in Multimodal MRI. *Statistics and Its Interface* 12(2), 193-202.
64. Liang, H., **Zhang, F.**, and Niu, X. (2019) Investigating Systematic Bias in Brain Age Estimation with Application to PTSD. *Human Brain Mapping* 40(11), 3143-3152.
65. Wang, L., Heywood, A., Stocks, J., Bae, J., Ma, D., Popuri, K., Toga A., Kantarci, K., Younes, L., Mackenzie, I.R., Beg, M.F., **Zhang, F.**, and Rosen, H. (2019), Grant Report on PREDICT-ADFTD: Multimodal Imaging Prediction of AD/FTD and Differential Diagnosis. *Journal of Psychiatry and Brain Science* 4, e190017.
66. Forman, E.M., Goldstein, S.P., Crochiere, R.J., Butryn, M.L., Juarascio, A.S., **Zhang, F.**, and Foster, G.D. (2019), Randomized Controlled Trial of OnTrack, a Just-in-Time Adaptive Intervention Designed to Enhance Weight Loss. *Translational Behavioral Medicine* 9(6), 989-1001.
67. Godfrey, M., Hepburn, S., Fidler, D., Tapera, T., **Zhang, F.**, Robinson, C., Lee, N.R. (2019). Autism spectrum disorder (ASD) symptom profiles of children with comorbid Down syndrome (DS) and ASD: A comparison with children with DS-only and ASD-only. *Research in Developmental Disabilities* 89, 83-93.

68. Schumacher, L.M., Kerrigan, S.G., Remmert, J.E., Call, C.C., **Zhang, F.**, & Butryn, M.L. (2019). I think therefore I am? Examining the relationship between exercise identity and exercise behavior during behavioral weight loss treatment. *Psychology of Sport & Exercise* 43, 123-127.
69. Butryn, M.L., Martinelli, M.K., Remmert, J.E., Roberts, S.R., **Zhang, F.**, Forman, E.M., & Manasse, S.M. (2019). Executive functioning as a predictor of weight loss and physical activity outcomes. *Annals of Behavioral Medicine* 53(10), 909-917.
70. Duan, H., Wang, X., Wang, Z., Xue, W., Kan, Y., Hu, W., and **Zhang, F.** (2019), Acute Stress Shapes Creative Cognition in Trait Anxiety. *Frontiers in Psychology* 10, 1517.
71. Lowe, M.R., Marmorstein, N., Iacono, W., Rosenbaum, D., Espel-Huynh, H., Muratore, A. F., Lantz, E., and **Zhang, F.** (2019). Body concerns and BMI as predictors of disordered eating and body mass in girls: An 18-year longitudinal investigation. *Journal of Abnormal Psychology* 128(1), 32-43.
72. **Zhang, F.**, Tapera, T.M., and Gou, J. (2018), Application of a New Dietary Pattern Analysis Method in Nutritional Epidemiology. *BMC Medical Research Methodology* 18, 119.
73. **Zhang, F.**, Yang, E., Niu, X., and Zhu Y. (2018). Joint Modeling of the Association between NIH Funding and Its Three Primary Outcomes: Patents, Publications, and Citation Impact. *Scientometrics* 117(1), 591-602.
74. Goldstein, S.P., **Zhang, F.**, Thomas, J.G., Butryn, M.L., Herbert, J.D., and Forman, E.M. (2018). Application of Machine Learning to Predict Dietary Lapses During Weight Loss. *Journal of Diabetes Sciences and Technology* 12(5), 1045-1052.
75. Lowe, M.R., Butryn, M.L., and **Zhang, F.** (2018). Evaluation of Meal Replacements and a Home Food Environment Intervention for Long-term Weight Loss: A Randomized Controlled Trial. *The American Journal of Clinical Nutrition* 107(1), 12-19.
76. Forman, E.M., Goldstein, S.P., **Zhang, F.**, Evans, B. C., Manasse S.M., Butryn, M.L., Juarascio, A.S., Abichandani, P., Martin, G.J., and Foster, G.D. (2018). OnTrack: Development and Feasibility of a Smartphone App Designed to Predict and Prevent Dietary Lapses. *Translational Behavioral Medicine* 9, 236-245.
77. Erickson, B., Truelove-Hill, M., Oh, Y., Anderson, J., **Zhang, F.**, Kounios, J. (2018). Resting-State Brain Oscillations Predict Trait-like Cognitive Styles. *Neuropsychologia* 120, 1-8.
78. Call, C.C., Schumacher, L.M., Rosenbaum, D.L., Convertino, A.D., **Zhang, F.**, Butryn, M.L. (2018). Participant and interventionist perceptions of challenges during behavioral weight loss treatment. *Journal of Behavioral Medicine*, 1-12.
79. **Zhang, F.** (2017). Resting-state functional connectivity abnormalities in adolescent depression. *EBioMedicine* 17, 20-21.

80. Gou, J., and **Zhang, F.** (2017), Experience Simpson's Paradox in the Classroom. *The American Statistician* 71(1), 61-66.
81. Manasse, S.M., Flack, D., Dochat, C., **Zhang, F.**, Butryn, M.L., Forman, E.M. (2017), Not so fast: The Impact of Impulsivity on Weight Loss Varies by Treatment Type. *Appetite* 113, 193-199.
82. Rosenbaum, D.L., Espel, H.M., Butryn, M., **Zhang, F.**, and Lowe, M.R. (2017). Daily self-weighting and weight gain prevention: A longitudinal study of college-aged women. *Journal of Behavioral Medicine* 40(5), 846-853.
83. Butryn, M.L., Forman, E.M., Lowe, M.R., Gorin, A., **Zhang, F.**, and Schaumberg, K. (2017). Efficacy of environmental and acceptance-based enhancements to behavioral weight loss treatment: the ENACT trial. *Obesity* 25(5), 866-872.
84. Goldstein, S.P., Evans, B.C., Flack, D., Juarascio, A.S., Manasse, S.M., **Zhang, F.**, and Forman, E.M. (2017). Return of the JITAI: Applying a just-in-time adaptive intervention framework to the development of m-Health solutions for addictive behaviors. *International Journal of Behavioral Medicine* 24(5), 673-682.
85. **Zhang, F.**, Jiang, W., Wong, P.C.M., and Wang, J.-P. (2016), Bayesian Probit Model with Spatially Varying Coefficients and Its Application to Functional Magnetic Resonance Imaging. *Statistics in Medicine* 35(24), 4380-4397.
86. **Zhang, F.**, and Gou, J. (2016), A P-value Model for Theoretical Power Analysis and its Applications in Multiple Testing Procedures. *BMC Medical Research Methodology* 16, 135.
87. Schumacher, L.M., Gaspar, M.E., Remmert, J., **Zhang, F.**, Forman, E.M., and Butryn, M.L. (2016), Small Weight Gains During Obesity Treatment: Normative or Cause for Concern? *Obesity Science & Practice* 2(4), 366-375.
88. Manasse, S.M., Espel, H.M., Kerrigan, S.G., Schumacher, L.M., **Zhang, F.**, Forman, E.M., and Juarascio, A.S. (2016), Does Impulsivity Predict Treatment Outcome for Binge Eating Disorder? A multimodal investigation. *Appetite* 105, 172-179.
89. Viswanathan, V., Shultz, D., Block M., Blood A.J., Breiter, H.C., Calder B., Chamberlain L., Lee N., Livengood S., Mulhern, F., Raman, K., Stern, D.B., and **Zhang, F.** (2016), Using fMRI Analysis to Unpack a Portion of Prospect Theory for Advertising/Marketing Understanding. *Rediscovering the Essentiality of Marketing*, 453-470.
90. **Zhang, F.**, Wang, J.-P., Kim, J., Todd, P., and Wong, P.C.M. (2015), Decoding Multiple Sound Categories in the Human Temporal Cortex Using High Resolution fMRI. *PLOS ONE* 10(2), e0117303.
91. Liang, J., Hong, D., **Zhang, F.**, and Zou, J. (2015), IMSmining: A Tool for Imaging Mass Spectrometry Data Biomarker Selection and Classification. *Springer Proceedings in Mathematics & Statistics* 139, 155-162.

92. Manasse, S.M., Espel, H.M., Forman, E.M., Juarascio, A.S., Butryn, M.L., Ruocco, A.C., **Zhang, F.**, and Lowe, M.R. (2015), The Independent and Interacting Effects of Hedonic Hunger and Executive Function on Binge Eating. *Appetite* 89, 16-21.
93. Block, M.P., Schultz, D.E., Breiter, H., Blood, A., Calder, B., Chamberlain, L., and **Zhang, F.** (2015), Redefining neuromarketing. In: American Academy of Advertising Conference. *Proceedings in American Academy of Advertising*, 53.
94. Breiter, H.C., Block M., Blood A.J., Calder B., Chamberlain L., Lee N., Livengood S., Mulhern, F., Raman, K., Shultz, D., Stern, D.B., Viswanathan, V., and **Zhang, F\***. (2014), Redefining Neuromarketing as an Integrated Science of Influence. *Frontiers in Human Neuroscience* 8, 1073.  
**\*Co-first author.**
95. **Zhang, F.**, and Hong, D. (2011), Elastic Net Based Framework for Imaging Mass Spectrometry Data Biomarker Selection and Classification. *Statistics in Medicine* 30, 753-768.
96. Hong, D., and **Zhang, F.** (2010), Weighted Elastic Net Model for Mass Spectrometry Imaging Processing. *Journal of Mathematical Modeling of Natural Phenomena* 5(3), 115-133.
97. Hong, D., Qin, S.Y., and **Zhang, F.** (2010), Mathematical Tools and Statistical Techniques for Proteomic Data Mining. *International Journal of Mathematics and Computer Science* 5(2), 123-140.
98. Kong, Q.C., Li, C.G., and **Zhang, F.** (2007), FPGA Design in Accelerated Graphic Display in Primary Flight Display. *Journal of Electronic Technology and Application* 4, 62-64.
99. Kong, Q.C., Li, C.G., and **Zhang, F.** (2006), A New Method of Accelerated Graph Display in Primary Flight Display Based on FPGA. Proc. SPIE 6357, *Sixth International Symposium on Instrumentation and Control Technology*, 635732.

## VII. SOFTWARE DEVELOPMENT

1. graposas: Graphical Approach Optimal Sample Size (released in 2023)  
<https://cran.rstudio.com/web/packages/graposas/>
2. triggerstrategy: An R Package on Trigger Strategy in Clinical Trials (released in 2021).  
<https://CRAN.R-project.org/package=triggerstrategy>
3. regrap: An R Package on Reverse Graphical Approaches (released in 2020).  
<https://CRAN.R-project.org/package=regrap>
4. raincin: An R package on Ranking with Incomplete Information (released in 2020).  
<https://CRAN.R-project.org/package=raincin>
5. fuel: An R Package on a Unified Framework for Estimation in Lognormal Models (released in 2019).  
<https://CRAN.R-project.org/package=fuel>

6. EEG Brain Age Prediction (released in 2019).
7. elitism: An R Package on Equipment for Logarithmic and Linear Time Stepwise Multiple Hypothesis Testing (released in 2019).  
<https://cran.r-project.org/package=elitism>
8. TakeControl: A Therapeutic Smartphone App for Binge Eating Disorder (released in 2018).
9. OnTrack: A Smartphone App Designed to Predict and Prevent Dietary Lapses (released in 2018).
10. gsrbs: An R Package for Group Sequential Refined Secondary Boundaries (released in 2017).  
<https://cran.r-project.org/package=gsrbs>
11. IMSmining: A Tool for Imaging Mass Spectrometry Data Biomarker Selection and Classification (released in 2010).  
<http://capone.mtsu.edu/dhong/IMSmining.htm>

#### VIII. ORGANIZED CONFERENCE SESSIONS & SYMPOSIA

1. **Zhang, F.**, Organizer (2019 - 2023) for American Statistical Association (ASA) Philadelphia Chapter Webinar Series, Philadelphia, PA.
2. **Zhang, F.**, Pre-Conference Workshop Organizer (2022, September) for *Data Analytic Strategies for Handling Big Data Sets – Applications to Eating Disorder Research* at the Eating Disorders Research Society Conference, Philadelphia, PA.
3. **Zhang, F.**, Session Organizer (2021, May) for *Recent Advances in Statistical Methods for Complex Neuroimaging Data* at the Statistical Methods in Imaging Conference, Atlanta, GA.
4. Crainiceanu, C., Guo, Y., Chen, S., Harezlak, J., Krafty, R., Shinohara, R., Zhang, T., **Zhang, F.** and etc., Conference Planning Committee (2021, May) for Statistical Methods in Imaging Conference, Atlanta, GA.
5. **Zhang, F.**, Organizer (2020, October) for the ASA Philadelphia Chapter Traveling Course, *Analysis of Big Healthcare Databases*, Philadelphia, PA.
6. **Zhang, F.**, Session Chair (2019, March) for *Emerging Statistical Issues and Methods for Integrating Multi-Domain mHealth Data* at the Eastern North American Region (ENAR) of the International Biometrics Society Meeting, Philadelphia, PA.
7. **Zhang, F.**, Session Chair (2018, July) for *Recent Advances on Research Synthesis Methods* at the ICSA China Conference with the Focus on Data Science, Qingdao, China.
8. **Zhang, F.**, Session Chair (2018, June) for *Clinical trial design and statistical methods for cancer studies* at the ICSA Applied Statistics Symposium, New Brunswick, NJ.
9. **Zhang, F.**, Session Organizer (2018, June) for *Challenges and Innovations in Modeling Large Scale Imaging Data* at the ICSA Applied Statistics Symposium, New Brunswick, NJ.

10. **Zhang, F.**, Session Organizer (2018, June) for *Recent Advances in Modeling Large-Scale Imaging Data* at the Statistical Methods in Imaging Conference, Philadelphia, PA.
11. **Zhang, F.**, Robinson, L., Chervoneva, I., Shou, H., Linn, K., and Shinohara, R., Local Organizing Committee (2018, June) for *Statistical Methods in Imaging Conference*, Philadelphia, PA.
12. **Zhang, F.**, Session Organizer (2017, August) for *Recent Advances for Modeling Neuroimaging Data* at the 2017 Joint Statistical Meetings (JSM), Baltimore, MD.

## IX. INVITED PRESENTATIONS

1. **Zhang, F.**, Taylor, A., (2023, June). *Investigating the temporal pattern of neuroimaging-based brain age estimation as a biomarker for Alzheimer's Disease related neurodegeneration*. Invited talk presented at ICSA 2023 Applied Statistics Symposium, Ann Arbor, MI.
2. **Zhang, F.**, (2022, September). *Data Analytic Strategies for Handling Big Data Sets*. Invited talk at the Eating Disorders Research Society Conference, Philadelphia, PA.
3. **Zhang, F.**, (2022, June). *Statistical Modeling Issues in Brain Age Prediction*. Invited talk at the 5<sup>th</sup> International Conference on Econometrics and Statistics (EcoSta), Kyoto, Japan.
4. **Zhang, F.**, (2021, May). *Penalized Multi-state Models for Examining Multimodal Imaging Signatures of Alzheimer's Disease*. Invited talk presented at the Statistical Methods in Imaging Conference, Atlanta, GA.
5. **Zhang, F.**, (2021, April). *Machine Learning for Wearables and Smart Devices*. Invited talk presented at the Rehabilitation Sciences Research Seminar, Drexel University, Philadelphia, PA.
6. **Zhang, F.**, Heywood, A., Stocks, J.K., Wang, L. (2020, August). *Multi-state Markov Transition Models for Examining Multimodal Imaging Signatures of Alzheimer's Disease*. Invited talk presented at the 2020 Joint Statistical Meetings (JSM), Philadelphia, PA.
7. **Zhang, F.**, Niu, X., and Liang, H. (2019, December). *Improved Prediction of Brain Age Using Multi-modal Neuroimaging Data*. Invited talk presented at the 11<sup>th</sup> ICSA International Conference, Hangzhou, China.
8. **Zhang, F.**, Juarascio, A., and Forman, E. (2019, November). *Improved Modeling of Multi-Sensor Mobile Health Data*. Invited talk presented at the Biostatistics Seminar, Drexel University, Philadelphia, PA.
9. **Zhang, F.**, Tapera, T.M., and Juarascio, A. (2019, August). *Statistical Modeling for Integrating Data from Multiple Wearable Sensors to Detect Affect Lability*. Invited talk presented at the 2019 Joint Statistical Meetings (JSM), Denver, CO.
10. **Zhang, F.**, Tapera, T.M., and Juarascio, A. (2019, March). *Statistical Modeling for Integrating Data from Multiple Wearable Sensors to Detect Affect Lability*. Invited talk presented at the



Eastern North American Region (ENAR) of the International Biometrics Society Meeting, Philadelphia, PA.

11. **Zhang, F.**, and Niu, X. (2018, December). *Hierarchical Bayesian Models for Integrating Multimodal Neuroimaging Data*. Invited talk presented at the 11<sup>th</sup> International Conference of the ERCIM WG on Computational and Methodological Statistics, Pisa, Italy.
12. **Zhang, F.** (2018, October). *A Big Data Approach to Understanding Complex Behavioral and Neuroimaging Data*. Invited talk presented at the Biostatistics Seminar, Sidney Kimmel Cancer Center, Thomas Jefferson University, Philadelphia, PA.
13. **Zhang, F.** (2018, July). *A Big Data Approach to Understanding Complex Behavioral and Neuroimaging Data*. Invited talk at Science Technology & Teaching Forum, Key Lab of Modern Teaching Technology, Ministry of Education, Shaanxi Normal University, Xi'an, China.
14. **Zhang, F.**, and Gou, J. (2018, July). *Control of False-Positive Rates in Clusterwise fMRI Inferences*. Invited poster presented at the ICSA China Conference with the Focus on Data Science, Qingdao, China.
15. **Zhang, F.**, and Niu, X. (2018, June). *Joint Modeling of Multimodal Neuroimaging Signatures of PTSD*. Invited talk presented at the ICSA Applied Statistics Symposium, New Brunswick, NJ.
16. **Zhang, F.**, and Niu, X. (2018, June). *An Integrative Model for Assessing Multimodal Neuroimaging Signatures of Post-traumatic Stress Disorder*. Invited talk presented at the Statistical Methods in Imaging Conference, Philadelphia, PA.
17. **Zhang, F.**, Tapera, T.M., Goldstein, S.P., and Forman, E. (2018, March). *Improved Modeling of Smartphone-based Ecological Momentary Assessment Data for Dietary Lapse Prediction*. Invited talk presented at the Eastern North American Region (ENAR) of the International Biometrics Society Meeting, Atlanta, GA.
18. **Zhang, F.**, Tapera, T.M., Goldstein, S.P., and Forman, E. (2017, December). *Development of a Smartphone App and Machine Learning Algorithms to Predict and Prevent Dietary Lapses*. Invited talk presented at the Wearable Computing Group, mHealth Group Seminar, University of Pennsylvania, PA.
19. **Zhang, F.** (2017, October). *Statistical Modeling for High Dimensional Structured Data with Application to Neuroimaging*. Invited talk presented at the Philadelphia Big Data Symposium, Philadelphia, PA.
20. **Zhang, F.**, and Niu, X. (2017, August). *An Integrative Model for Assessing Multimodal Neuroimaging Signatures of Post-traumatic Stress Disorder*. Invited talk presented at the 2017 Joint Statistical Meetings (JSM), Baltimore, MD.
21. **Zhang, F.** (2017, May). *Multimodal Neuroimaging, Wearable Computing, and Big Data Integration*. Invited talk presented at the SMART group seminar, Johns Hopkins University, Baltimore, MD.

22. **Zhang, F.** (May 2016). *Statistical Modeling for High Dimensional Biomedical Imaging Data*. Invited talk presented at Drexel University Math Department Seminar, Philadelphia, PA.
23. **Zhang, F.**, Jiang, W., and Wang, J.-P. (2015, October). *Analytical Modeling for High Dimensional Structured Neuroimaging Data*. Invited talk at the Brain Behavior Lab, University of Pennsylvania, Philadelphia, PA.
24. **Zhang, F.** (2015, June). *New Statistical Methods for High Dimensional Biomedical Imaging Data Analysis*. Invited talk presented at the Biological Discovery from Big Data Workshop, Philadelphia, PA.
25. **Zhang, F.** (2015, April). *Statistical Modeling for High Dimensional Structured Data with Application to Neuroimaging*. Invited talk presented at the College of Arts and Sciences Dean's Seminar Series, Drexel University, Philadelphia.
26. **Zhang, F.**, Jiang, W., and Wang, J.-P. (2014, September). *Bayesian Probit Model with Spatially Varying Coefficients and Its Application to Functional Magnetic Resonance Imaging*. Invited talk presented at the Imaging Genetics Seminar, University of Pennsylvania, Philadelphia, PA.
27. **Zhang, F.**, and Hong, D. (2011, March). *Imaging Mass Spectrometry Data Biomarker Selection and Classification*. Invited talk presented at the Statistics Department Seminar, Northwestern University, Evanston, IL.
28. **Zhang, F.**, and Hong, D. (2009, October). *Recent Progress on Biomarker Selection of IMS Data*. Invited talk presented at the Bio-math Seminar, Math Department, Middle Tennessee State University, Murfreesboro, TN.
29. **Zhang, F.**, and Hong, D. (2009, May). *Variable Selection Methods for IMS Data Analysis*. Invited talk presented at the Mass Spectrometry Research Center Seminar, Vanderbilt University, Nashville, TN.

#### **X. CONTRIBUTED PRESENTATIONS**

30. **Zhang, F.**, Tapera, T.M., Goldstein, S.P., and Forman, E. (2018, August). *Improved Modeling of Imbalanced Data for Dietary Lapse Prediction*. Talk presented at the 2018 Joint Statistical Meetings (JSM), Vancouver, Canada.
31. **Zhang, F.**, and Gou, J. (2018, June). *Control of False-Positive Rates in Clusterwise fMRI Inferences*. Poster presented at the 24th Annual Meeting of the Organization of Human Brain Mapping, Singapore.
32. **Zhang, F.**, Jiang, W., and Wang, J.-P. (2016, August). *An Integrative Classification Model for Multiple Sclerosis Lesion Detection in Multimodal MRI*. Talk presented at the 2016 Joint Statistical Meetings (JSM), Chicago, IL.

33. **Zhang, F.**, Jiang, W., and Wang, J.-P. (2015, June). *An Integrative Segmentation Method of Multiple Sclerosis Lesions in Multimodal MRI*. Poster presented at the 21th Annual Meeting of the Organization of Human Brain Mapping, Honolulu, HI.
34. **Zhang, F.**, Jiang, W., and Wang, J.-P. (2013, August). *Bayesian Probit Model with Spatially Varying Coefficients and Its Application to Functional Magnetic Resonance Imaging*. Talk presented at the 2013 Joint Statistical Meetings (JSM), Montreal, Canada.
35. **Zhang, F.**, Jiang, W., and Wang, J.-P. (2013, June). *Bayesian Probit Model with Spatially Varying Coefficients and Its Application to Functional Magnetic Resonance Imaging*. Poster presented at the 19th Annual Meeting of the Organization of Human Brain Mapping, Seattle, WA.
36. **Zhang, F.**, Wang, J.-P., Wong, P.C.M. (2012, June). *Decoding Multiple Sound Categories in the Human Temporal Cortex Using High Resolution fMRI*. Poster presented at the 18th Annual Meeting of the Organization of Human Brain Mapping, Beijing, China.
37. **Zhang, F.**, Wang, J.-P., Wong, P.C.M. (2012, May). *Sound Category Representation in the Human Temporal Cortex Using High Resolution fMRI*. Talk presented at the Cognitive Neuroscience Annual Data Blitz, Northwestern University, Chicago, IL.
38. **Zhang, F.**, and Hong, D. (2010, March). *Elastic Net Based Model for Imaging Mass Spectrometry Proteomic Data Processing*. Talk presented at the Eastern North American Region (ENAR) of the International Biometrics Society Meeting, New Orleans, LA.
39. **Zhang, F.**, and Hong, D. (2009, May). *On Imaging Mass Spectrometry Data Analysis*. Talk presented at Mathematical Modeling in the Medical Sciences in conjunction with the 24th Annual Shanks Conference, Vanderbilt University, Nashville, TN.

#### **XI. SELECTED PRESENTATIONS AS NON-PRESENTING CO-AUTHOR**

40. Schaumberg, K., Lowe, M., **Zhang, F.**, & Micali, N. (2023, September). Deviation from expected body mass index is associated with eating disorder behaviors in youth. Poster presented at the annual meeting of the Eating Disorders Research Society, Boston, MA.
41. Ferariu, A., Chang, H., Taylor, A., & **Zhang, F.** (2023, May). The Effects of Early Alcohol Consumption on Mental Health Outcomes: Results from the Adolescent Brain and Cognitive Development (ABCD) Study. Poster presented at the annual Statistical Methods in Imaging conference, Minneapolis, MN.
42. Chang, H., Taylor, A., Ferariu, A., & **Zhang, F.** (2023, May). Linking Biological Age and Brain Age to Child Health in the Adolescent Brain Cognitive Development (ABCD) Study. Poster presented at the annual Statistical Methods in Imaging conference, Minneapolis, MN.
43. Crochiere, R. J., Butryn, M. L., **Zhang, F.**, Beaulieu, K., Maher, J. P., Huang, Z., Cong, C., & Forman, E. M. (2023, April). The Intraday Relation Between Physical Activity and Dietary Intake Among Behavioral Weight Loss Participants. Live research spotlight to be presented at the 44th Annual Meeting and Scientific Sessions of the Society of Behavioral Medicine, Phoenix, AZ.

44. Butryn, M.L., **Zhang, F.**, Crane, N., & Forman, E.F. (2021, November). *The impact of physical activity on long-term weight loss depends on eating behavior*. Poster to be presented at the annual meeting of The Obesity Society, Virtual Meeting (COVID-19).
45. Kim, B., Niu, X., **Zhang, F.** (2021, June), *Disrupted Functional Connectivity in Adolescent Social Phobia with and without ADHD Comorbidity*. Poster presented at the Annual Meeting of the Organization of Human Brain Mapping, Virtual Meeting (COVID-19).
46. Crochiere, R.J., **Zhang, F.**, Juarascio, A.S., Goldstein, S.P., Thomas, J.G., & Forman, E.M. (2020, November). *Comparing Momentary Self-Report Versus Sensor-Based Approaches in Predicting Dietary Lapse*. Paper presented at ObesityWeek 2020, Atlanta, GA.
47. Taylor, A., **Zhang, F.**, Heywood, A., Stocks, J.K., Wang, L. (2020, August). *Investigating the temporal pattern of neuroimaging based brain age prediction as a biomarker for dementia*. Contributed talk presented at the 2020 Joint Statistical Meetings (JSM), Philadelphia, PA.
48. Crochiere, R.J., **Zhang, F.**, Juarascio, A.S., & Forman, E. M. (2020, April). *Harnessing sensor technology and machine learning to predict dietary lapses in a weight loss program*. Paper presented at the 41st Annual Meeting and Scientific Sessions of the Society of Behavioral Medicine, San Francisco, CA.
49. Butryn, M.L., Godfrey, K., Martinelli, M.K., **Zhang, F.**, & Forman, E.F., (2020, April). *The acceptability and efficacy of sharing digital self-monitoring data with weight loss coaches to enhance adherence*. Paper presented at the 41st Annual Meeting and Scientific Sessions of the Society of Behavioral Medicine, San Francisco, CA.
50. Juarascio, A.S., Crochiere, R.J., Taper, T.M., Palermo, M., **Zhang, F.** (2020, April). *Momentary Changes in Heart Rate Variability Can Detect Risk for Emotional Eating Episodes*. Paper presented at the 41st Annual Meeting and Scientific Sessions of the Society of Behavioral Medicine, San Francisco, CA.
51. Crochiere, R.J., **Zhang, F.**, Juarascio, A.S. & Forman, E.M. (2019, November). *Integrating sensor technology and machine learning to target dietary lapses*. Paper presented at the Obesity and Eating Disorder Special Interest Group Meeting at the Association for Behavioral and Cognitive Therapies Annual Convention, Atlanta, GA.
52. Juarascio, A.S., Forman, E.M., Manasse, S.M., Presseller, E., **Zhang, F.**, Srivastava, P., Clark, K (September, 2019). *Using Just-in-Time Adaptive Interventions to Enhance Treatment Outcomes*. In Wildes, J. (Chair). *New Directions in Eating Disorder Treatment Research*. Symposium conducted at the Eating Disorders Research Society Annual Meeting, Chicago, IL.
53. Forman, E.M., Juarascio, A.S., Manasse, S.M., **Zhang, F.**, Weimer, J., Parker, M., Presseler, E., Crochiere, R.J., Taper, T. (2019, September). *Harnessing sensor data with advanced algorithms to predict, detect and prevent problematic eating behaviors*. In Haynos, A. (Chair). *Collaborating with computers: The promise of machine learning to advance eating disorders research*. Symposium conducted at the Eating Disorders Research Society Annual Meeting, Chicago, IL.

54. Espel-Huynh, H.M., Lowe, M.L., **Zhang, F.**, & Thomas, J.G. (2019, September). *What can we learn about early treatment response from “unpredictable” patients? Empirical Analysis of patients whose treatment outcome was misclassified via machine learning prediction*. Poster presented at the annual meeting of the Eating Disorders Research Society, Chicago, IL.
55. Lagacey, M., **Zhang, F.**, DeYoung, K., Zillmer, E., O’Brien, K., Juarascio, A., (2019, March). *Examining Risk and Protective Factors in the Development of Disordered Eating Behaviors in Freshmen College Athletes*. Poster presented at the International Conference on Eating Disorders, New York, New York.
56. Espel-Huynh, H.M., Thomas, J.G., **Zhang, F.**, Boswell, J.F., Juarascio, A.S., & Lowe, M.L. (2019, March). *Comparing Two Machine Learning Approaches to Predict Treatment Response Patterns in Eating Disorder Treatment*. Paper presented at the 40th Annual Meeting of the Society of Behavioral Medicine, Washington, D.C.
57. Espel-Huynh, H.M., Thompson-Brenner, H., Boswell, J.F., **Zhang, F.**, & Lowe, M.R. (2018, November). *Latent Symptom Change Trajectories During Residential Treatment and Their Impact on Risk for Early Relapse*. Poster presented at the Association for Behavioral and Cognitive Therapies annual conference, Washington, D.C.
58. Butryn, M.L, Forman, E.M., & **Zhang, F.** (2018, November). *Physical Activity Promotion During Long-term Behavioral Weight Loss: An RCT*. Poster presented at the annual meeting of The Obesity Society, Nashville, TN.
59. Espel-Huynh, H.M., **Zhang, F.**, Thomas, J.G., Boswell, J.F., Thompson-Brenner, H., Juarascio, A.J., & Lowe, M.R. (2018, November). *An Application of Machine Learning to Predict Patterns of Response to Eating Disorder Treatment*. Paper presented at the Obesity and Eating Disorder SIG meeting of the Association for Behavioral and Cognitive Therapies annual conference, Washington, D.C.
60. Schumacher, L.M., Kerrigan, S.K., Call, C.C., Remmert, J.E., **Zhang, F.**, & Butryn, M.L. (2018, April). *I think therefore I am? Examining the Relationship between Exercise Identity and Exercise in Obesity Treatment*. Poster presented at the 39th Annual Meeting and Scientific Sessions of the Society of Behavioral Medicine, New Orleans, LA
61. Butryn, M. L., **Zhang, F.**, Remmert, J. E., Roberts, S. R., & Forman, E. M. (2018, April). *Baseline Executive Functioning Predicts Weight Loss and Physical Activity Outcomes in A Lifestyle Modification Program*. Poster presented at the 39th Annual Meeting and Scientific Sessions of the Society of Behavioral Medicine, New Orleans, LA.
62. Butryn, M. L., Schumacher, L. M., Rosenbaum, D. L., Convertino, A. D., & **Zhang, F.** (2018, April). *Participant and Clinician Perception of Challenges during Behavioral Weight Loss Treatment*. Poster presented at the 39th Annual Meeting and Scientific Sessions of the Society of Behavioral Medicine, New Orleans, LA.
63. Forman, E. M., Goldstein, S. P. **Zhang, F.**, Butryn, M. L., Juarascio, A. S., Manasse, S.M., Martin, G.J. (2018, April). *OnTrack: Can a Smartphone-based Just-time Adaptive Intervention*

*Improve Weight Loss Outcomes?* Poster presented at the 39th Annual Meeting and Scientific Sessions of the Society of Behavioral Medicine, New Orleans, LA.

64. Ding, K., Patterson, C.P., Barakat, L.P., **Zhang, F.**, Daly, B.P. (2018, April). *Assessing the Moderation Effects of Cognitive Functioning, Academic Functioning, and Academic Needs on the Relationship between Disease Management and Health-related Quality of Life in Youth with Sickle Cell Disease*. Poster presented at the 2018 Society of Pediatric Psychology Annual Conference, Orlando, FL.
65. Espel-Huynh, H., Boswell, J.F., Thompson-Brenner, H., Ortiz, S.N., **Zhang F.**, Brooks, G.E., & Lowe, M.R. (2018, April). *Awareness and Tolerance of Emotional Experience as Mechanisms of Change Among Patients Receiving Transdiagnostic, Intensive Eating Disorder Treatment*. Paper presented at the International Conference on Eating Disorders, Chicago, IL.
66. Bradstreet, L. E., **Zhang, F.**, Moberg, P.J., Calkins, M.E., Daly, B., Schultheis, M.T., Robins, D.L. (2018, February). *Relationships Between Autism Traits, Psychosis Traits, and Mentalizing in a Clinical-Community Sample*, International Neuropsychological Society (INS) Washington DC.
67. Espel-Huynh, H.M., Boswell, J.F., **Zhang, F.**, Thompson-Brenner, H., Brooks, G.E., & Lowe, M.R. (2017, November). *Who “Gets Better” During Residential Treatment, and Who Does Not? An Evaluation of Characteristics of Patients Who Are At Risk for Treatment Failure*. Poster presented at the annual Renfrew Conference, Philadelphia, PA.
68. Espel-Huynh, H.M., **Zhang, F.**, Boswell, J.F., & Lowe, M.R. (2017, November). *Latent Symptom Change Trajectories During Eating Disorder Treatment and Their Impact on Outcome*. Poster presented at the SIG exposition during the annual meeting of the Association for Behavioral and Cognitive Therapies, San Diego, CA.
69. Butryn, M.L., Forman, E.F., **Zhang, F.**, Lowe, M.R., & Gorin, A. (2017, October). *Environmental and Acceptance-based Behavioral Weight Loss: Mechanisms and Long-term Outcomes*. Poster presented at the annual meeting of the Obesity Society, Washington, D.C.
70. Forman, E.M., Goldstein, S.P., Abichandani, P., **Zhang, F.**, Evans, B.C., Manasse, S.M., Juarascio, A.S., Butryn, M.L., Martin, G.M. (2017, March). *Using Machine Learning and Just In Time Adaptive Intervention to Predict and Prevent Dietary Lapses: The DietAlert App*. Paper presented at the 38th Annual Meeting and Scientific Sessions of the Society of Behavioral Medicine, San Diego, CA.
71. Manasse, S.M., Espel, H.M., Schumacher, L.M., Kerrigan, S.G., **Zhang, F.**, Forman, E.M., & Juarascio, A.S. (2016, May). *Are Binge Eating Disorder Patients with Higher Negative Urgency Less Responsive to Treatment?* Poster presented at the annual meeting of the International Conference on Eating Disorders. San Francisco, CA.
72. Muratore, A. F., Espel, H.M., Lantz, E.L., Marmorstein, N.R., Rosenbaum, D.L., **Zhang, F.**, Iacono, W.G., & Lowe, M.R. (2016, October). *Are Dieting and Weight Concern Risk Factors for ED Symptoms? A 12-year Population-based Prospective Study*. Poster presented at the annual meeting of the Eating Disorders Research Society, New York, NY.

## XII. TEACHING EXPERIENCE

- a. Undergraduate
- Computer-Assisted Data Analysis I  
(Fall 2017, Spring 2019)
  - Computer-Assisted Data Analysis II  
(Winter 2018, Summer 2019)
  - Computer-Assisted Data Analysis II (online)  
(Summer 2015)
  - Independent Study: Intro to Statistical Learning  
(Winter 2020)
- b. Graduate
- Behavioral Data Mining  
(Winter 2015, Winter 2017, Spring 2020)
  - Statistical Modeling with R  
(Winter 2021, Winter 2023)
  - Data Analysis in Psychology I  
(Fall 2015, Fall 2016)
  - Data Analysis in Psychology II  
(Winter 2016, Winter 2017)
  - Independent Study: Machine Learning in Psychology  
(Fall 2015, Summer 2015)
  - Independent Study: Multivariate Data Analysis  
(Fall 2017, Spring 2017)
  - Independent Study: Neuroimaging Data Analysis  
(Spring 2017, Winter 2019)
  - Independent Study: Introduction to Network Analysis  
(Winter 2018)
  - Independent Study: Confirmatory Factor Analysis  
(Spring 2018)

## XIII. THESIS AND DISSERTATION COMMITTEES

### Dissertation Committees, Psychology

\* primary mentee

1. Alexei Taylor, “Evaluating and improving putative Alzheimer’s disease subtype assignment at the individual-level”, PhD in Applied Cognitive and Brain Sciences, proposed in 2023 (**Chair**).
2. Christine Chesebrough, “Interactions between the dynamics and phenomenology of creative relational reasoning: The effect of analogical ‘aha!’ moments on affect, learning, and transfer”, PhD in Applied Cognitive and Brain Sciences, defended in 2023.
3. Christina Felonis, “Application of Machine Learning to Predict Binge Eating and Compensatory Behavior Episodes During Cognitive Behavioral Therapy for Bulimia Nervosa”, PhD in Clinical Psychology, proposed in 2022.

4. Emily Presseller, “Using Wearable Passive Sensing to Predict Engagement in Binge Eating in Response to Negative Affect: A Multimethod Investigation of Predictive Utility, Feasibility, and Acceptability”, PhD in Clinical Psychology, proposed in 2022.
5. Elizabeth Lampe, “Predicting Adaptive and Maladaptive Exercise in Binge Spectrum Eating Disorders Using Passive Sensors and Ecological Momentary Assessment”, PhD in Clinical Psychology, proposed in 2022.
6. Nina Rothstein, "Emotional States versus Personality Traits: Predicting Attitudes and Behaviors in Human-Robot Interaction", PhD in Applied Cognitive and Brain Sciences, defended in 2022.
7. Jeanne McPhee, "Impact of Risk Assessment Information on Judges’ Decisions about Residential Placement and Restrictive Sanctions", PhD in Clinical Psychology, defended in 2022.
8. Daniel Flack, "The Relationship Between Psychopathy, Antisocial Personality Traits, and Violence Among U.S. Veterans: A Quasi-Experimental Study", PhD in Clinical Psychology, defended in 2022.
9. Rebecca Crochiere, "The Intraday Relation Between Physical Activity and Dietary Intake Among Behavioral Weight Loss Participants", PhD in Clinical Psychology, defended in 2022.
10. Yongtaek Oh, “Machine-Learning Classification of Electroencephalogram Data Corresponding to Insight and Analytic Problem-Solving”, PhD in Applied Cognitive and Brain Sciences, defended in 2022.
11. Chandler Puhly, "Mixed Methods Investigation of Researcher Implementation and Perceptions of Participatory Action Research with School-Aged Youth", PhD in Clinical Psychology, defended in 2022.
12. Kelley Durham, “The Relationship Between Reactive Violence and Self-Harm Among Individuals with Mental Illness in the Community”, PhD in Clinical Psychology, defended in 2021.
13. Amani Piers, “Within-subject variability in weight: Characterization and clinical correlates in residential patients with an eating disorder”, PhD in Clinical Psychology, defended in 2021.
14. Taralee Hamner, “Biomarkers of Early Social Learning in Neurodevelopmental Disorders”, PhD in Clinical Psychology, defended in 2021.
15. Victoria Pietruszka, “Heuristics and biases in law and psychology: Examining stereotype bias in racial descriptors and parole revocation decisions”, PhD in Clinical Psychology, defended in 2021.
16. Martina Arz, “Help Seeking Behavior: Examining the contribution of subjective cognitive decline and sociodemographic factors”, PhD in Clinical Psychology, defended in 2021.
17. Xin Niu\*, “Altered Brain Development and Neuroimaging Biomarkers for Psychiatric Disorders: a Machine Learning Approach”, PhD in Applied Cognitive and Brain Sciences, defended in 2021 (**Chair**).



18. Christine Call, “Examining the Role of Weight Suppression in the Context of a Weight Gain Prevention Program for Emerging Adults”, PhD in Clinical Psychology, defended in 2021.
19. Ann-Marie Raphail, “Transcranial Magnetic Stimulation (TMS) Study in Individuals with Visuospatial Neglect Due to Stroke”, PhD in Clinical Psychology, defended in 2020.
20. Rebecca Schiedel, “The Role of Psychosocial Maturity and Race in Juvenile Transfer Decisions: An Examination through Statistical Models”, PhD in Clinical Psychology, defended in 2020.
21. Helen Burton Murray, “A Pilot Development Trial of Cognitive-Behavioral Interventions for Gastroparesis”, PhD in Clinical Psychology, defended in 2020.
22. Kelley Durham, “The Relationship Between Reactive Violence and Self-Harm Among Individuals with Mental Illness in the Community”, PhD in Clinical Psychology, proposed in 2019.
23. Martina Azar, “Subjective Cognitive Decline and Help Seeking Behavior: An Examination of the Contribution of Sociodemographic Factors Within a Clinic Sample of At-Risk Older Adults”, PhD in Clinical Psychology, proposed in 2019.
24. Amani Piers, “Within-subject Variability in Weight: Characterization and Clinical Correlates in Residential Patients with Eating Disorder”, PhD in Clinical Psychology, proposed in 2019.
25. Victoria Pietruszka, “Heuristics and Biases Among Decision-Makers: The “Human Factor” of the Criminal Justice System?”, PhD in Clinical Psychology, proposed in 2019.
26. Christine C. Call, “Examining the Role of Weight Suppression in the Context of a Weight Gain Prevention Program for Emerging Adults”, PhD in Clinical Psychology, proposed in 2019.
27. Taralee Hamner, “Early Social Learning in Neurodevelopmental Disorders”, PhD in Clinical Psychology, proposed in 2019.
28. Lauren Bradstreet, “The Impact of Autism Traits and Psychosis Traits on Mentalizing in Individuals with and without Autism Spectrum Disorder”, PhD in Clinical Psychology, defended in 2019.
29. Kayci Vickers, “Impact of Structured Recommendations on Consistency in Adherence to Behavioral Regimens in Traumatic Brain Injury”, PhD in Clinical Psychology, defended in 2019.
30. Peter Hitchcock, “Does Rumination Steal Attention from Potentially Reinforcing Cues?”, PhD in Clinical Psychology, defended in 2019.
31. Mona Elgohail, “An Internet-based Intervention to Mitigate Depression in Muslim Women Experiencing Infertility: A Randomized Controlled Trial”, PhD in Clinical Psychology, defended in 2019.

32. Hallie Espel, “Measurement and Prediction of Treatment Failure Among Residential Eating Disorder Patients Using a Novel Routine Outcome Monitoring Measure”, PhD in Clinical Psychology, defended in 2019.
33. Elizabeth Gale-Bentz, “Do Juvenile Probation Officer Recommendations Mediate the Relationship Between Youth Behaviors and Supervision Review Hearing Outcomes?”, PhD in Clinical Psychology, defended in 2019.
34. Benjamin Locklair, “Beyond Self-Report: Construction and Validation of the Implicit Test of Antisocial Attitudes”, PhD in Clinical Psychology, defended in 2019.
35. Jon Landrigan\*, “Exploring Aphasia Using Community Detection Analysis and Machine Learning”, PhD in Applied Cognitive and Brain Sciences, defended in 2018 (**Chair**).
36. Dave Rosen, “Brain-states for Increased Creative Performance: Jazz Improvisation, Expertise, EEG, and Flow”, PhD in Applied Cognitive and Brain Sciences, defended in 2018.
37. Brian Erickson, “Trait like Resting State Brain Oscillation Predict Subsequent Problem Solving Strategies”, PhD in Applied Cognitive and Brain Sciences, defended in 2018.
38. Monica Hill, “Using Machine Learning to Differentiate between Healthy Aging, Mild Cognitive Impairment, & Alzheimer's Disease”, PhD in Applied Cognitive and Brain Sciences, defended in 2018.
39. Stephanie Kerrigan, “Project Step: Dismantling Several Common Components of Financial Incentive Programs for Physical Activity”, PhD in Clinical Psychology, defended in 2018.
40. Staci Berkowitz, “Responsivity to an Analogue Psychological Acceptance Task and Neurophysiological Measures as Predictors of Treatment Response for Public Speaking Anxiety”, PhD in Clinical Psychology, defended in 2017.
41. Sam Winter, “Predicting Weight-Related Outcomes in Healthy Adolescents: Clinical Applications of fMRI and Machine Learning”, PhD in Applied Cognitive and Brain Sciences, defended in 2017.
42. Emily Feig, “Assessing the Relationship Between Weight Variability and Eating Regulation”, PhD in Clinical Psychology, defended in 2017.
43. Aimee Hildenbrand, “Childhood Trauma and Posttraumatic Stress in Pediatric Amplified Musculoskeletal Pain Syndromes”, PhD in Clinical Psychology, defended in 2016.

#### **Dissertation Committees, Other Departments**

44. Eammon Hart, “ $L_p$  estimates for solutions to BSDE’s and Zero Knowledge Proofs for Flow Free and Related Graph Problems”, PhD in Mathematics, defended in 2022.
45. Kathleen Padova, “Citation Behavior Patterns and Sentiments towards Retracted Articles: a comparison of pre- and post-retraction citations”, PhD in Information Science, defended in 2021.

46. Daryl Omire-Mayor, “Monitoring and Analysis of the Hemodynamic Response to Noxious Stimuli Using Functional Near Infrared Spectroscopy”, PhD in Biomedical Engineering, defended in 2018.
47. Dara Winley, “Parent-Teen Emotional Connections as A Protective Factor in African American Families with a Depressed or Suicidal Adolescent”, PhD in Couple and Family Therapy, defended in 2018.
48. Anderson-Stahl Nathan, “The Basics of Stochastic Calculus”, PhD in Mathematics, proposed in 2018.
49. Xiajing Gong, “Contour Integration via Cortical Interactions in Visual Cortex”, PhD in Biomedical Engineering, defended in 2016.

### **Thesis Committees, Psychology**

50. Alexa Schlyfestone, "Does EEG Frontal Asymmetry Neuromarketing Predict Eating Behavior?", MS in Psychology, defended in 2023.
51. Hansoo Chang, “Investigating Pace of Biological Aging as a Mental and Physical Health Biomarker in Youth with Perinatally-Acquired HIV”, proposed in 2023 (**Chair**).
52. Alexei Taylor\*, “Investigating the Temporal Pattern of Neuroimaging-based Brain Age Estimation as a Biomarker for Alzheimer’s Disease Related Neurodegeneration”, PhD in Applied Cognitive and Brain Sciences, defended in 2022 (**Chair**).
53. Emily Presseller, "Glucose Variability as a Physiological Correlate of Eating Disorder Behaviors among Individuals with Binge-Spectrum Eating Disorders", PhD in Clinical Psychology, defended in 2022.
54. Brian Kim, "The Effect of Rest and Task States on EEG Phase Prediction Accuracy", MS in Psychology, defended in 2022 (**Co-Chair**).
55. Angela Pollard, “Disrupting Youths’ Education: School Transfer Following Arrest and its Impact on Student Graduation and Dropout”, MS in Clinical Psychology, defended in 2021.
56. Christine Chesebrough, “Conceptual Change Induced by Analogical Reasoning sparks “Aha!” Moments”, PhD in Applied Cognitive and Brain Sciences, defended in 2021.
57. Benjamin Deck, “Predicting Cognitive Control Associated Attention-Deficit Hyperactivity Symptoms in Adolescents and Early Adults Using Individually Measured Functional Connectivity”, PhD in Applied Cognitive and Brain Sciences, defended in 2021.
58. Riley Cook\*, “The Effects of Theta Burst Stimulation on Working Memory and Emotional Wellbeing”, MS in Clinical Psychology, defended in 2020 (**Co-Chair**).

59. Rebecca Williams, “Investigating Emotional Intelligence in Mild-moderate TBI”, PhD in Clinical Psychology, defended in 2020.
60. Rebecca Crochiere, “Integrating Sensor Technology and Machine Learning to Target Dietary Lapses”, PhD in Clinical Psychology, defended in 2020.
61. Xinyi Zhu, “Prestimulus Brain Oscillations Predict Subsequent Solving by Insight Versus Analysis in an Anagram Task”, MS in Psychology, defended in 2020.
62. Monica Martinez, “Associations of Exercise Variety with Weight and Physical Activity Outcomes in a Behavioral Weight Loss Treatment”, MS in Clinical Psychology, defended in 2020.
63. Leora Benson, “Resting State Functional Connectivity of Loss of Control Eating and Weight Concern in Youth”, PhD in Applied Cognitive and Brain Sciences, defended in 2019.
64. Yongtaek Oh, “Identification and Localization of the Insight-Related Reward Signal Using EEG”, PhD in Applied Cognitive and Brain Sciences, defended in 2019.
65. Chandler Puhly, “Factors Associated with Peer and Teacher Discordant Identification of Relationally Aggressive Students”, PhD in Clinical Psychology, defended in 2019.
66. Martina Azar, “Self-awareness, Executive Functioning, and Vocational Outcomes in Mild-moderate TBI”, PhD in Clinical Psychology, defended in 2019.
67. Amani Piers, “Evaluation of Environmental and Nutritional Changes in a Home Food Environment Intervention for Weight Loss”, PhD in Clinical Psychology, defended in 2019.
68. Tinashe Tapera\*, “Advanced Data Mining Models for Psychological and Behavioral Research”, BS/MS in Psychology, defended in 2018 (**Chair**).
69. Xin Niu\*, “Revealing the Neural Basis of Working Memory Using Voxel-based Morphometry MVPA”, PhD in Applied Cognitive and Brain Sciences, defended in 2018 (**Chair**).
70. Delia Sudler, “Perceived Influences of Culture on African American Weight Loss Experiences”, MS in Clinical Psychology, defended in 2018.
71. Chelsea Day, “Cumulative Risk Factors for Socioemotional Problems in Toddlers with Developmental Delays”, MS in Clinical Psychology, defended in 2018.
72. Britt Evans, “A Meta-Analysis Comparing Weight Loss Outcomes Between Overweight BED and non-BED Participants in Behavioral Weight Loss Treatment Programs”, PhD in Clinical Psychology, defended in 2018.
73. Stephanie Callan, “Is it Addressed in Clinical Supervision and What is the Role of Stress?”, MS in Clinical Psychology, defended in 2018.

74. Ke Ding, “A Secondary Analysis on School-Aged Children with Sickle Cell Disease”, MS in Clinical Psychology, defended in 2017.
75. Stephanie Goldstein, “A Preliminary Investigation of a Personalized Risk Alert System for Weight Control Lapses”, PhD in Clinical Psychology, defended in 2016.

#### **XIV. ACADEMIC ADVISOR**

##### Doctoral Students:

Jon Landrigan, PhD in Applied Cognitive and Brain Sciences, 2014-2018  
Xin Niu, PhD in Applied Cognitive and Brain Sciences, 2016-2021  
Alexei Taylor, PhD in Applied Cognitive and Brain Sciences, 2019-2024  
Hansoo Chang, PhD in Applied Cognitive and Brain Sciences, 2021-2026  
Ana Ferariu, PhD in Applied Cognitive and Brain Sciences, 2022-2027

##### Master Students:

Tinashe Tapera, MS in Psychology, 2016-2018  
Riley Cook, MS in Psychology, 2018-2020  
Brian Kim, MS in Psychology, 2020-2022

##### Undergraduate Students:

Ana Ferariu, BS in Mathematics, 2016-2020  
Dennis Rattunde, BS in Mathematics, 2018-2022

#### **XV. STUDENT AWARDS & HONORS**

- |      |  |
|------|--|
| 2023 | Travel Award for the 2023 MIDUS Meeting<br>(Recipient: Hansoo Chang)   |
| 2022 | Master’s Thesis with Distinction Award<br>(Recipient: Alexei Taylor)   |
| 2021 | Department of Psychology Exceptional Achievement Award<br>(Recipient: Xin Niu)                               |
| 2019 | Travel Award for the Big Data Neuroscience Conference<br>(Recipient: Alexei Taylor)                          |
| 2018 | Fellowship at Insight Data Science Program<br>(Recipient: Jon Landrigan)                                     |
| 2018 | Poster Award at the Annual Conference of Statistical Methods in Imaging<br>(Recipient: Xin Niu)              |
| 2016 | Travel Award from the Summer Institute in Statistics for Big Data<br>(Recipient: Daniel Flack)               |
| 2016 | Travel Award from the Statistical and Applied Mathematical Sciences Institute<br>(Recipient: Tinashe Tapera) |

## **XVI. ACADEMIC AND INSTITUTIONAL COMMITTEES**

### **a. Departmental, College, & University Activities**

2014 - present	Statistical Consultant
2016 - present	Department Awards Committee
2023	Department Tenure and Promotion Committee
2023	Drexel Review Committee for Scholarly Materials & Research Equipment Awards
2023	Judge for Drexel DPG Essay Contest
2023	Review Committee for Dean's Fellowship
2023	Mentor for the department freshman/transfer student mentoring program
2022	Review Committee for Departmental Endorsement for American Psychological Foundation Graduate Student Scholarships
2022	Judge for Drexel DPG Essay Contest
2022	Departmental Tenure and Promotion Committee
2017 - 2019	Master Program Curriculum Committee, Department of Psychology
2017 - 2019	Data Analytics Service for Strategic Planning, Thomas R. Kline School of Law
2017 - 2019	Drexel Grant Review Committee for Faculty Summer Research Award
2017 - 2019	Master Student Interview Panel, Department of Psychology
2018	Poster Judge for Drexel Emerging Graduate Scholars Conference
2018 - 2019	Judge for the Zelda Provenzano Endowed STEM Writing Award
2016 - 2017	Behavioral Data Analytics Review Committee
2017	Women of Color in Psychology Discussion Panel

### **b. Professional Activities & Committees**

2019 - 2020	President, American Statistical Association (ASA) Philadelphia Chapter
2018 - 2021	Publication Officer for the ASA Statistics in Imaging Section
2018 - 2019	Vice President, American Statistical Association (ASA) Philadelphia Chapter
2018	Poster Judge for the Eastern North American Region (ENAR) of the International

Biometrics Society Meeting, Atlanta, GA

## **XVII. PROFESSIONAL SOCIETIES**

### **a. Professional Affiliations**

American Statistical Association (ASA) member  
Member of Organization for Human Brain Mapping (OHBM)  
Eastern North American Region (ENAR) member  
Society for Industrial and Applied Mathematics (SIAM) member

### **b. Service**

#### ***Journal & Editorial Activity***

2023-present	<u>Frontiers in Genetics</u> Review Editor
2018-present	<u>Frontiers in Applied Mathematics and Statistics</u> Review Editor
2015-present	<u>Journal of Health &amp; Medical Informatics</u> Editorial Board

#### ***Ad hoc Reviewer***

The Lancet  
The Lancet Psychiatry  
The Lancet Neurology  
Biometrics  
Annals of Applied Statistics  
NeuroImage  
Biometrical Journal  
Neurobiology of Aging  
EBioMedicine  
The Lancet Child & Adolescent Health  
The Lancet Healthy Longevity  
Statistics and Its Interface  
Journal of Informetrics  
The Lancet Digital Health  
EClinicalMedicine  
BMC Medical Informatics and Decision Making  
Journal of Health & Medical Informatics  
International Journal of Computational Mathematics  
Journal of Mental Disorder and Treatment  
PLOS ONE  
Journal of Data Mining in Genomics and Proteomics  
Journal of Maternal and Pediatric Nutrition