# Tanya P. Garcia

UNC Chapel Hill Department of Biostatistics Gillings School of Global Public Health

Chapel Hill, NC 27516

# Education

Ph.D., Statistics, Texas A&M University, College Station, TX Dissertation: Efficient semiparametric estimators for biological, genetic, and measurement error applications.	08/2011
M.Sc., Statistics, University of Western Ontario, London, ON, Canada Thesis: Improving the PROMETHEUS model through parameter smoothing.	08/2006
M.S., Industrial Engineering and Operations Research, University of California, Berkeley, Berkeley, CA	05/2005
B.S., Mathematics, University of California, Irvine, Irvine, CA	06/2003
Positions and Employment	

Email:

Web:

tpgarcia@email.unc.edu

https://tpgarcia.github.io/

# F

Associate Professor of Biostatistics (Tenured), Gillings School of Global Public Health, The University of North Carolina at Chapel Hill	07/2020-Present
Affiliate of the Carolina Center for Population Aging and Health (CCPAH), The University of North Carolina at Chapel Hill	04/2021-Present
Associate Professor of Statistics (Tenured), Texas A&M University	09/2018-07/2020
Assistant Professor of Biostatistics, Texas A&M School of Public Health	01/2013- 08/2018
Research Assistant Professor of Statistics, Texas A&M University	07/2011-12/2012
Visiting Scholar, The University of Sydney, Australia	11/2012
Fully funded (\$7,200 AUS) four-week invitation by Prof. Samuel Müller and Prof. Alan Welsh.	
Research Assistant, Oak Ridge National Lab, Oak Ridge, TN	06/2010-08/2010
Research Assistant, MD Anderson Cancer Center, Houston, TX	07/2008-08/2008
Teaching Assistant, University of Neuchâtel, Neuchâtel, Switzerland	09/2006-06/2008
Teaching Assistant, University of Western Ontario, London, ON, Canada	09/2005-06/2006
Research Assistant, RWTH Institute of Operations Research and Logistics,	06/2004-08/2004
Aachen, Germany	
Research Assistant, University of California, Irvine, Irvine, CA	09/2002-06/2003
Teaching Assistant, University of California, Irvine, Irvine, CA	09/2001-06/2003

# Other Professional Experience

2020-Present Grant Foundry Coach, Marketing Your Science, LLC Regional Advisory Board (RAB) Chair for the Eastern Northern Amer-2022-2023 ican Region/International Biometric Society (ENAR)

Regional Advisory Board (RAB) Co-Chair for the Eastern Northern American Region/International Biometric Society (ENAR) Associate Editor of Australian & New Zealand Journal of Statistics Associate Editor of Biostatistics Honors and Awards	2020-2021 04/2021- 01/2019-
26. 2022 Carolina Women's Leadership Council Faculty Mentoring	2022
Award	
This award recognizes outstanding faculty members who go the extra mile to guide, mentor and teach. Awarded to 3 out of 100+ applications.	
25. Featured in AMSTAT News Hispanic Heritage Month	2020
24. Sigma Xi Member, Texas A&M Chapter	2020
23. Plenary Speaker at the 39th International Symposium on Fore- casting, Thessaloniki, Greece	2019
22. Mentoring Institute for Neuroscience Diversity Scholars (MINDS) Fellow	2017-2018
NIH NINDS funded program that promotes the advancement of un-	
derrepresented independent researchers in neuroscience.	
21. Southeastern Conference (SEC) Travel Grant Program Award, Texas A&M University*	2016-2017
*Awarded but then unable to be used due to collaborator moving to non-SEC university.	
20. <b>14th Meeting of New Researchers in Statistics and Probability Travel Award</b> , University of California, San Diego	2012
Travel award to attend workshop which promotes interaction and networking among new researchers in statistics and probability.	
19. SACNAS National Conference Travel Award, Seattle, WA	2012
18. Roadmap for a Successful Academic Career Workshop Travel Award, Texas A&M University	2012
Designed for internal and external women postdoctoral researchers and assistant professors (2 years or less) in STEM fields.	
17. American Statistical Association Gertrude M. Cox Award (\$2,000)	2011
Awarded to 2 out of 1200 female applicants from throughout the US and Canada.	
16. Phi Kappa Phi Member, Texas A&M Chapter	2011
Awarded to top 10% of seniors and graduate students at Texas A&M University.	
15. Emerging Researchers National Conference in Science, Technology, Engineering and Mathematics Travel Award Awarded to 100 applicants.	2011

14. William S. Connor Award, Texas A&M University Awarded to the student whom the faculty deems the most outstanding among those students passing the preliminary examinations during the 2008-2009 academic year.	2010
13. Building Future Faculty Travel Award, North Carolina State University  Awarded to 12 out of 100 applicants from graduate programs throughout the US.	2010
12. Negotiating the Ideal Faculty Position Travel Award, Rice University  Awarded to 65 out of 1100 applicants from graduate programs throughout the US.	2010
11. Ford Foundation Predoctoral Fellowship Honorable Mention	2010
10. Teaching Assistant of the Year in the Sciences, University of Western Ontario	2006
9. Summa Cum Laude, School of Physical Sciences, University of California, Irvine	2003
8. Mathematics Departmental Service/Undergraduate Service Award, University of California, Irvine	2003
7. Outstanding Senior in Mathematics, University of California, Irvine	2003
6. Phi Beta Kappa Member, University of California, Irvine	2003
Awarded to top 5% of graduating seniors at University of California, Irvine.	
5. Ronald E. McNair Scholar, University of California, Irvine	2002-2003
4. Leadership Scholarship, University of California, Irvine	2000-2002
3. The National Dean's List, University of California, Irvine	2000-2003
2. National Society of Collegiate Scholars, University of California, Irvine	2001
1. National Hispanic Scholar Finalist, University of California, Irvine	2000

## **Professional Memberships**

American Statistical Association

Center for Environmental Health and Susceptibility (CEHS) at UNC Chapel Hill

ENAR

Huntington Study Group

Institute of Mathematical Statistics

National Society of Collegiate Scholars

Phi Beta Kappa

Phi Kappa Phi

Society for Neuroscience

#### Research Interests

Neurodegenerative Diseases, Nonparametric Models, Prediction Models, Semiparametric Models, Survival Analysis Longitudinal Data Analysis, High-Dimensional Variable Selection

#### **Books and Chapters**

- 36. Dutra, J.R.\*, Garcia, T.P.\* (\*shared first authorship), Marder, K. (2020). Huntington's Disease. In Oxford Textbook of Neurological and Neuropsychiatric Epidemiology, editors Carol Brayne, Valery Feigin, Lenore Launer, and Giancarlo Logroscino. pp. 1-15.
- 35. Garcia, T.P., Marder, K. and Wang, Y. (2017). Statistical modeling of Huntington disease onset. In Handbook of Clinical Neurology, vol 144: 47-61, 3rd Series, editors Andrew Feigin and Karen E. Anderson. doi: 10.1016/b978-0-12-801893-4.00004-3.

#### Peer-Reviewed Publications

<u>Underline</u> denotes co-author was a trainee at the time the paper was developed.

#### **Under Review**

- 34. Lotspeich, S.C. and Garcia, T.P. (2022<sup>+</sup>). Escaping the trap: Replacing the trapezoidal rule to better impute censored covariates with their conditional means. pp. 1-25.
- 33. Zhang, Y., Daniels, J., Engel, S., Marshall, S., O'Shea, M., Garcia, T.P., and Schieve, L. (2022<sup>+</sup>). Malpresentation and autism spectrum disorders in the study to explore early development. pp. 1-15.
- 32. Zhang, Y., Elgart, M., Granot-Hershkovitz, E., Wang, H., Tarraf, W., Ramos, A.R., Stickel, A.M., Zeng, D., **Garcia, T.P.**, Testai, F.D., Wassertheil-Smoller, S., Isasi, C.R., Daviglus, M.L., Kaplan, R., Fornage, M., DeCarli, C., Redline, S., Gonzalez, H. and Sofer, T. (2022<sup>+</sup>). Genetic associations t between sleep traits and cognitive aging outcomes in the Hispanic Community Health Study/Study of Latinos. pp. 1-15.
- 31. <u>Kim, R.</u>, Pourahmadi, M., and **Garcia, T.P.** (2022<sup>+</sup>). A positive definite thresholding estimator of a covariance matrix and its asymptotic efficiency. pp. 1-15.
- 30. Zhang, Y., Elgart, M., Granot-Hershkovitz, E., Wang, H., Tarraf, W., Ramos, A.R., Stickel, A.M., Zeng, D., **Garcia, T.P.**, Testai, F.D., Wassertheil-Smoller, S., Isasi, C.R., Daviglus, M.L., Kaplan, R., Fornage, M., DeCarli, C., Redline, S., González, H.M., and Sofer, T. (2022<sup>+</sup>). Genetic Associations between Sleep Traits and Cognitive Aging Outcomes in the Hispanic Community Health Study/Study of Latinos. pp. 1-24.
- 29. Elfassy, T., Dodds, L., Mesa, R.A., Rundek, T., Sharashidze, V., Paidas, M., Daviglus, M., Kominiarek, M.A., Perreira, K.M., Kobayashi, M.A., Stickel, A., **Garcia, T.P.**, Isasi, C.R., Lipton, R.B., and Kulandavelu, S. (2022<sup>+</sup>). Associations between hypertensive disorders of pregnancy and cognitive decline, The Hispanic Community Health Study/Study of Latinos, 2008-2017, pp. 1-24.

28. Pichardo, C.M., Pichardo, M.S., Gallo, L.C., Talavera, G.A., Sanchez-Johnsen, L.A.P, Pirzada, A., Chambers, E.C., Roy, A.L., Castañeda, S.F., Durazo-Arvizu, R.A., Perreira, K.M., Garcia, T.P., Rodriguez, C., Allison, M., Carlson, J. Daviglus, M.L., and Plascak, J.J. (2022<sup>+</sup>). Association of Neighborhood Segregation with 6-Year Incidence of Metabolic Syndrome in the Hispanic Community Health Study/ Study of Latinos. pp. 1-24.

#### Published/In Press

- 27. Granot-Hershkovitz, E., He, S., Bressler, J., Yu, B., Boerwinkle, E., Tarraf, W., Rebholz, C.M., Mosley, T., Kristal, B., DeCarli, C., Fornage, M., Chen, G., Qi, Q., Kaplan, R., Garcia, T.P., Gonzalez, H.M., Sofer, T. (2022). Plasma metabolites associated with cognitive function across race/ethnicities affirming the importance of healthy nutrition, Alzheimer's and Dementia: The Journal of the Alzheimer's Association, in press, pp. 1-25, doi:10.1002/alz.12786.
- 26. <u>Lotspeich, S., Grosser, K.F.</u>, and **Garcia, T.P.** (2022). Correcting conditional mean imputation for censored covariates and improving usability. *Biometrical Journal*, pp. 1-5, doi: 10.1002/bimj.202100250
- 25. <u>Kim, R.</u>, Müller, S., and **Garcia, T.P.** (2021). svReg: Structural Varying-coefficient regression to differentiate how regional brain atrophy affects motor impairment for Huntington disease severity groups. *Biometrical Journal*, **63**, 1254-1271.
- 24. Parast, L., Garcia, T.P., Carroll, R.J., and Ross, R.L. (2020). Robust methods to correct for measurement error when evaluating a surrogate marker. *Biometrics*, doi: 10.1111/biom.13386.
- 23. <u>Lee, U.</u>, Carroll, R.J., Marder, K., Wang, Y., and **Garcia, T.P.** (2020). Estimating disease onset from change points of markers measured with error. *Biostatistics*, doi: 10.1093/biostatistics/kxz068.
- 22. **Garcia, T.P.** and Parast, L. (2020). Dynamic landmark prediction for mixture models. *Biostatistics*, doi:10.1093/biostatistics/kxz052.
- 21. Lee, U., Garcia, T.P., Carroll, R.J., Gilbreath, K. and Wu, G. (2019). Analysis of repeated measures data in nutrition research. Frontiers in Bioscience, Landmark, 24, 1378-1390.
- 20. Shipp, E., <u>Vasudeo</u>, S., Trueblood, A. and **Garcia**, **T.P.** (2019). Single Logging Vehicle Crashes and Variables Associated with Injury in Louisiana. *Journal of Agromedicine*, **24**, 177-185. doi: 10.1080/1059924X.2019.1567422.
- 19. **Garcia, T.P.**, Marder, K. and Wang, Y. (2019). Time-varying Proportional Odds Model for Mega-analysis of Clustered Event Times, *Biostatistics*, **20**, 129-146. doi: 10.1093/biostatistics/kxx065.
- 18. Wei, Y., Ma, Y., Garcia, T.P. and Sinha, S. (2019). Consistent estimator for logistic mixed effect models. The Canadian Journal of Statistics, 47, 140-156. doi:10.1002/cjs.11482.
- 17. Garcia, T.P., Wang, Y., Shoulson, I., Paulsen, J.S., and Marder, K. (2018). Disease progression in Huntington Disease: an analysis of multiple longitudinal outcomes. *Journal of Huntington Disease*, 7, 337-344. doi: 10.3233/JHD-180297.
- 16. **Garcia**, **T.P.** and Ma, Y. (2017). Simultaneous treatment of unspecified heteroskedastic model error distribution and mismeasured covariates for restricted moment models. *The Journal of Econometrics*, **200**, 194-206.

- 15. **Garcia, T.P.**, Ma, Y., Marder, K. and Wang, Y. (2017). Robust mixed-effects model for clustered failure time data: application to Huntington's disease event measures. *Annals of Applied Statistics*, **11**, 1085-1116.
- 14. **Garcia, T.P.** and Marder, K. (2017). Statistical Approaches to longitudinal data analysis in neurodegenerative diseases: Huntington's Disease as a model. *Current Neurology and Neuroscience Reports*, **17**:14, doi:10.1007/s11910-017-0723-4.
- 13. **Garcia, T.P.** and Müller, S. (2016). Cox regression with exclusion frequency-based weights to identify neuroimaging markers relevant to Huntington's disease onset. *Annals of Applied Statistics*, **10**, 2130-2156.
- 12. Kohli, P., **Garcia, T.P.** and Pourahmadi, M. (2016). Linear models for cholesky factors of covariance matrices of multivariate longitudinal data. *Journal of Multivariate Analysis*, **145**, 87-100.
- 11. **Garcia**, **T.P.** and Ma, Y. (2015). Optimal estimator for logistic model with distribution-free random intercept. *Scandinavian Journal of Statistics*, **43**, 156-171.
- Qin, J.\*, Garcia, T.P.\* (\*shared first authorship), Ma, Y., Tang, M.X., Marder, K. and Wang, Y. (2014). Combining isotonic regression and EM algorithm to predict genetic risk under monotonicity constraint and unknown genotypes. Annals of Applied Statistics, 8, 1182-1208.
- 9. **Garcia, T.P.** and Müller, S. (2014). Influence of measures of significance-based weights in the weighted Lasso. *Journal of the Indian Society of Agricultural Statistics* (Invited paper), **68**, 131-144.
- 8. Garcia, T.P., Müller, S., Carroll, R.J., and Walzem, R.L. (2014). Identification of important regressor groups, subgroups, and individuals via regularization methods: application to gut microbiome data. *Bioinformatics*, doi: 10.1093/bioinformatics/btt608.
- 7. **Garcia, T.P.**, Müller, S., Carroll, R.J., Dunn, T.N., Thomas, A.P., Adams, S.H., Pillai, S.D., and Walzem, R.L. (2013). Structured variable selection with q-values. *Biostatistics*, DOI: 10.1093/biostatistics/kxt012.
- Wang, Y., Garcia, T.P., and Ma, Y. (2012). Nonparametric estimation for censored mixture data with application to the Cooperative Huntington's Observational Research Trial. *Journal* of the American Statistical Association, 107, 1324-1338.
- 5. **Garcia**, **T.P.**, Kohli, P., Pourahmadi, M. (2012). Regressograms and mean-covariance models for incomplete longitudinal data. *The American Statistician*, **66**, 85-91.
- 4. Ye, F., Garcia, T.P., Pourahmadi, M., and Lord, D. (2012). Extension of a negative binomial GARCH model: analyzing the effects of gasoline price and VMT on DUI fatal crashes in Texas. Transportation Research Record: Journal of the Transportation Research Board, 2279, 31-39.
- 3. Garcia, T.P., Ma, Y., and Yin, G. (2011). Efficiency improvement in a class of survival models through model-free covariate incorporation. *Lifetime Data Analysis*, **17**, 552-565.
- 2. Barber, J., Bose, C., Bourlioux, A., Braun, J., Brunelle, E., **Garcia, T.**, Hillenk, T., and Ong, B. (2010). Burning issues with PROMETHEUS, the Canada's wildfire growth simulator. *Canadian Applied Mathematics Quarterly*, **16**, 337-378.
- 1. **Garcia, T.**, Braun, J., Bryce, R., and Tymstra C. (2008). Smoothing and bootstrapping the PROMETHEUS fire growth model. *Environmetrics*, **19**, 1-13.

#### Teaching

UNC Chapel Hill, Chapel Hill, NC	
Instructor, Longitudinal data analysis (Spring Semester, 35-40 students)	2023
Instructor, Probability and Statistical Inference II (Spring Semester, 35-40 students)	2022
Instructor, Biostatistics Seminars (50-60 students)	2020-2023
Texas A&M University, College Station, TX	
Instructor, Statistical Methods (Spring Semester, 91-100 students)	2020
Instructor, Statistical Methods (Spring Semester, 91-100 students)	2019
Texas A&M Health Science Center, College Station, TX	
Instructor, Biostatistics II Online (Spring Semester, 9-32 students)	2014-2018
Instructor, Biostatistics II In-Person (Spring Semester, 45-52 students)	2013-2015
Instructor, Statistics II, College of Medicine (one day course, $\approx 50$ students)	01/2013
University of Neuchâtel, Neuchâtel, Switzerland	,
Teaching Assistant, Calculus and Linear Models (taught in French, ( $\approx 60$ students)	Spring 2007, 2008
Teaching Assistant, Linear Models (Graduate Level, ≈ 15 students)	Fall 2007
Teaching Assistant, Econometrics ( $\approx 50$ students)	Fall 2006
University of Western Ontario, London, ON, Canada	
Teaching Assistant, Operations Research ( $\approx 30 \text{ students}$ )	Spring 2006
Teaching Assistant*, Applied Probability ( $\approx 50$ students)	Fall 2005
*Awarded Teaching Assistant of the Year in the Sciences	
University of California, Irvine, Irvine, CA	
Teaching Assistant, Statistics, Summer Bridge ( $\approx 20$ students)	Summer 2002
Tutor, Mathematics, Learning and Academic Resource Center ( $\approx 8$ students)	09/2001-06/2003
Advising and Formal Mentoring	

#### Postdoctoral Fellows Supervised

Sarah Lotspeich, Postdoctoral Associate of T32, University of North Car-	06/2021- $06/2022$
olina Chapel Hill, Gillings School of Global Public Health, Department	
of Biostatistics.	
Next position: Assistant Professor at Wake Forest University	
Unkyung Lee, Postdoctoral Associate of DHHS-NIH National Cancer In-	06/2017-09/2020
stitute T32, Texas A&M University, Department of Statistics.	

Next position: Postdoctoral Associate at FDA.

## **Doctoral Students Supervised**

Brian Richardson, UNC Chapel Hill, Department of Biotatistics	06/2022-
Benjamin Bodek, UNC Chapel Hill, Department of Biotatistics	05/2022-
Jesús Vazquez, UNC Chapel Hill, Department of Biotatistics	09/2021-
Peter Guan, UNC Chapel Hill, Department of Biotatistics	09/2021-05/2022

<b>Helal M. El Zaatari</b> , UNC Chapel Hill, Department of Biotatistics Co-Supervised with Michael Kosorok.	03/2021-05/2022
Marissa Ashner, UNC Chapel Hill, Department of Biotatistics	08/2020-
Kyle Grosser, UNC Chapel Hill, Department of Biotatistics	08/2020-
Rakheon Kim, Texas A&M University, Department of Statistics. Co- Supervised with Mohsen Pourahmadi. Next position: Assistant Professor at Baylor University.	05/2018-07/2022
Satwik Acharyya, Texas A&M University, Department of Statistics	Fall 2015
Master of Science Supervised	
Alice Yu, UNC Chapel Hill, Department of Biotatistics	09/2021-12/2021
Weixi Zhu, MS, Texas A&M University, Department of Statistics	2018-2019
<b>Timothy Gibson</b> , Honours (equivalent of Undergraduate Senior Diploma), The University of Sydney, Department of Statistics	2016-2017
Sage Lane, MPH, Texas A&M Health Science Center, Department of Epidemiology and Biostatistics	Summer 2014
Undergraduate Students Supervised	
Chen Lin, BS, Visiting Undergraduate Scholar from Fudan University	07/2019 - 05/2020
Service on Doctoral and Master of Science Committees	
Doctoral Student Committees	
UNC Chapel Hill	
Department of Epidemiology	
Yitian Zhang (Chair: Julie Daniels)	2021-
Texas A&M University	
Department of Statistics	
Eli Kravitz (Chair: Raymond J. Carroll)	2019
Shuai Chen (Chair: Hongwei Zhao and Lan Zhou)	2015
Department of Epidemiology and Biostatistics	
Xiaohuan Zhu (Chair: Hongwei Zhao)	2019-2021
Shubhangi Vasudeo (Chair: Eva Shipp)	2017-2022
Grants and Fellowships	

#### Active

17. **Biostatistician**, North Carolina Department of Health and Human Services (NCDHHS)

06/2022 - 05/2023

"Expansion in 2022-2023 of NC DHHS/CDC National Wastewater Surveillance System within the UNC System"  $\,$ 

16. <b>Biostatistician</b> , Contract with Northwestern University "Impact of Spiritual Well-being on Huntington Disease Onset"	06/2022-12/2022
15. <b>Principal Investigator</b> , CEHS Pilot Project P30ES010126  "Creating robust disease trajectories to test when environmental factors could alter disease progression."	03/2022-02/2023
14. Co-Investigator, 5T32ES007018  "Biostatistics for Research in Environmental Health," PI: Fry.	06/2021-05/2026
13. Co-Investigator, R21EB032059  "Data-driven Modeling and Ultrasound-based Control of Afferent Nerve Stimulation for Tremor Suppression," PI: Sharma.	08/2021-04/2024
12. <b>Co-Investigator</b> , 1U01DD001293	07/2021-06/2026
"Component A: North Carolina - Advancing Developmental Research using SEED and SEED Follow-up data," PI: Daniels.	, ,
11. <b>Co-Investigator</b> , 132323218 PO S9002633  "Study of Latinos - Investigation of Neurocognitive Aging 2," Study of Latinos, Ancillary study - SOL-INCA2, PI: Gonzalez.	07/2020-03/2025
10. <b>Principal Investigator</b> , NIH NINDS, K01NS099343, \$557,406 total "Innovative statistical models for development of first Huntington's disease progression risk assessment tool."	12/2016-12/2022
Completed	
9. <b>Biostatistician</b> , UL1 TR002489  "North Carolina Translational and Clinical Science Institute (NC TraCS) - Biostatistics, Epidemiology, and Research Design (BERD)," PI: Buse.	07/2020-12/2020
"North Carolina Translational and Clinical Science Institute (NC TraCS) - Biostatistics, Epidemiology, and Research Design	07/2020-12/2020 08/2017-09/2020
"North Carolina Translational and Clinical Science Institute (NC TraCS) - Biostatistics, Epidemiology, and Research Design (BERD)," PI: Buse.  8. Statistics Mentor, T32 DHHS-NIH-National Cancer Institute, 0% effort	
<ul> <li>"North Carolina Translational and Clinical Science Institute (NC TraCS) - Biostatistics, Epidemiology, and Research Design (BERD)," PI: Buse.</li> <li>8. Statistics Mentor, T32 DHHS-NIH-National Cancer Institute, 0% effort "Nutrition, Biostatistics and Bioinformatics," PI: Carroll.</li> <li>7. Co-Investigator, U54 OH007541-16, Centers for Agricultural Safety and Health, 0% effort "Leveraging motor vehicle crash data for injury surveillance and re-</li> </ul>	08/2017-09/2020
<ul> <li>"North Carolina Translational and Clinical Science Institute (NC TraCS) - Biostatistics, Epidemiology, and Research Design (BERD)," PI: Buse.</li> <li>8. Statistics Mentor, T32 DHHS-NIH-National Cancer Institute, 0% effort "Nutrition, Biostatistics and Bioinformatics," PI: Carroll.</li> <li>7. Co-Investigator, U54 OH007541-16, Centers for Agricultural Safety and Health, 0% effort "Leveraging motor vehicle crash data for injury surveillance and research in AFF," PI: Shipp.</li> <li>6. Principal Investigator, Texas A&amp;M School of Public Health Research Enhancement and Development Initiative (REDI) Grant, \$25,000 total "Identifying high-dimensional neuroimaging biomarkers associated</li> </ul>	08/2017-09/2020 12/2016-11/2019

- 3. **Principal Investigator**, Philanthropic Educational Organization 2010-2011 (P.E.O.) Scholar Award, \$15,000 total
- 2. **Principal Investigator**, National Science Foundation's Texas A&M University System Louis Stokes Alliance for Minority Participation Bridge to the Doctorate Fellowship, \$94,000 total
- 1. **Principal Investigator**, Chancellor's Opportunity Predoctoral Fellowship, University of California, Berkeley, \$67,000 total

#### Conferences and Symposia

#### **Invited Presentations**

69. Sleep and Metabolism Lab, Colorado State University, Fort Co	•
68. Statistical Challenges in the Identification, Validation, and Use Markers, Oaxaca, Mexico	se of Surrogate 08/2022
67. 2022 Joint Statistical Meeting, Washington, D.C., USA	08/2022
66. Speaker at Data Science in Action, Harvard University, Boston	n, MA 07/2022
65. 5th International Society for Non-Parametric Statistics (ISNPS phos, Cyprus	S) Meeting, Pa- 06/2022
64. University of Memphis, Department of Mathematical Sciences,	Memphis, TN $04/2022$
63. 2022 Eastern North American Region (ENAR) Annual Meeting	g, Houston, TX 03/2022
62. 14th International Conference of the ERCIM WG on Comp Methodological Statistics (CMStatistics 2021), Statistics in London, England	
61. Southern Methodist University, Department of Statistical Science	ces, Dallas, TX 12/2021
60. Penn State University, Department of Statistics, Centre Count	y, PA 11/2021
59. UFPE: Universidade Federal de Pernambuco (UFPE) Brasil, Statistics	Department of 07/2021
58. Girls Talk Math Invited Honorarium Speaker	07/2021
57. Connecticut College, Department of Mathematics and Statistics CT	s, New London, 10/2020
56. Rice University, Department of Statistics, Houston, TX	10/2020
55. International Chinese Statistics Association (ICSA) 2020 App Symposium, Houston, TX (cancelled due to COVID-19)	plied Statistics 05/2020
54. Texas A&M University, Louis Stokes Alliance for Minority Partinar Speaker, College Station, TX	ticipation Sem- 03/2020
53. University of Pennsylvania, Department of Biostatistics, Philad	delphia, PA 02/2020
52. <b>Inaugural Speaker</b> at the Bioinformatics Research & Appli sium, Texas A&M University, College Station, TX	cation Sympo- 10/2019
51. University of North Carolina at Chapel Hill, Department o Chapel Hill, NC	f Biostatistics, 09/2019
50. 3rd International Conference on Econometrics and Statistics,	Taichung, Tai- 06/2019
wan	
49. <b>Plenary Speaker</b> at the 39th International Symposium on For saloniki, Greece	ecasting, Thes- 06/2019

48.	2019 Eastern North American Region (ENAR) Annual Meeting, Philadelphia, PA	03/2019
47.	Department of Statistical Science, Southern Methodist University, Dallas, TX	10/2018
46.	2018 Joint Statistical Meeting, Vancouver, Canada	08/2018
45.	International Society for Non-Parametric Statistics (ISNPS) Meeting, Salerno, Italy	06/2018
44.	Institute for Mathematics and its Applications "Frontiers in Forecasting", Minneapolis, MN $$	02/2018
43.	10th International Conference of the ERCIM WG on Computational and Methodological Statistics, University of London, UK	12/2017
42.	Texas A&M University, Department of Statistics, College Station, TX	12/2017
	2017 Joint Statistical Meeting, Baltimore, MD	08/2017
40.	32nd Annual Huntington's Disease Society of America Annual Convention, Schaumberg, IL	06/2017
39.	International Conference on Econometrics and Statistics, Hong Kong University of Science and Technology, Hong Kong	06/2017
38.	2017 Conference on Lifetime Data Science, Storrs, CT	05/2017
37.	Baylor University, Department of Statistical Science, Waco, TX	02/2017
36.	Huntington Study Group, 10th Annual HD Clinical Research Symposium, Nashville, TN	11/2016
35.	Newest Developments and Urgent Issues in Measurement Error and Latent Variable Problems, Banff, Canada	08/2016
34.	2016 International Biometrics Conference, Victoria, Canada	07/2016
33.	2016 Eastern North American Region (ENAR) Annual Meeting, Austin, TX	03/2016
32.	2015 Joint Statistical Meeting, Seattle, WA	08/2015
31.	International Society for Non-Parametric Statistics (ISNPS) Meeting, Biosciences, Medicine, and Novel Non-Parametric Methods, Graz, Austria	07/2015
30.	International Chinese Statistical Association Applied Symposium, Fort Collins, CO	06/2015
29.	University of California, Riverside, Riverside, CA	06/2015
28.	University of North Carolina, Department of Biostatistics, Chapel Hill, NC	04/2015
27.	University of California, San Diego, Department of Family Medicine and Public Health, San Diego, CA	04/2015
26.	Manhattan College, Department of Mathematics, New York, NY	03/2015
25.	University of California, Berkeley, Department of Biostatistics, Berkeley, CA	01/2015
24.	University of California, Davis, Department of Statistics, Davis, CA	01/2015
23.	RAND Corporation, Santa Monica, CA	11/2014
22.	University of South Carolina, Department of Statistics, Columbia, SC	10/2014
21.	2014 Joint Statistical Meeting, Boston, MA	08/2014
20.	Australian Statistical Conference/Institute of Mathematical Statistics Annual Meeting, Australian Technology Park Sydney, Australia	07/2014
19.	The Ninth International Chinese Statistical Association (ICSA) International Conference: Challenges of Statistical Methods for Interdisciplinary Research and Big Data, Hong Kong Baptist University, Hong Kong	12/2013

18. Columbia University, Department of Biostatistics, New York, NY	09/2013
17. 2013 Joint Statistical Meeting, Montréal, Québec, Canada	08/2013
16. Western North American Region (WNAR) Conference, Los Angeles, CA	06/2013
15. Sam Houston State University, Department of Mathematics and Statistics, Huntsville, TX	02/2013
14. The Australian National University, Mathematical Sciences Institute, Canberra, New South Whales, Australia	11/2012
13. The University of Melbourne, School of Mathematics and Statistics, Melbourne, Victoria, Australia	11/2012
12. The University of Sydney, School of Mathematics and Statistics, Sydney, New South Whales, Australia	11/2012
11. International Chinese Statistical Association (ICSA) Applied Symposium, Boston, MA	06/2012
10. 8th Annual Texas A&M University System (TAMUS) Louis Stokes Alliance for Minority Participation (LSAMP) Symposium, Corpus Christi, TX	02/2012
9. Statistical Inverse Problems Workshop, College Station, TX	05/2012
Contributed Presentations	
8. Huntington Study Group, 9th Annual HD Clinical Research Symposium, Tampa Bay, Fl	10/2015
7. Huntington Study Group, 8th Annual HD Clinical Research Symposium, Minneapolis, MN	11/2014
6. Western North American Region Conference, Honolulu, HI	06/2014
5. University of Florida Winter Workshop: Dimension Reduction and High Dimensional Inference, Gainesville, Fl	01/2014
4. Huntington Study Group, 7th Annual HD Clinical Research Symposium, Charlotte, NC	11/2013
3. Eastern Northern American Region (ENAR) Annual Meeting, Miami, FL	03/2011
2. Emerging Researchers National Conference in Science, Technology, Engineering and Mathematics, Washington, DC	02/2011
1. The National GEM Consortium Annual Meeting, Vienna, VA	08/2010
Master of Science Committees	
Texas A&M University Department of Statistics	
Leo Lazcano	2019
Vanessa McMahan	2019
Genti Ndrevataj	2019
Timothy Parker	2019
Carroll Patton	2019
	2010

Michelle Perez

Weixi Zhu

Christopher Phelan

2019

2019

2019

Karen Fischer	2016
Timothy Erickson	2015
John Coppin	2014
I-Chia Liao	2014

# Service to the Profession

# ${\bf Professional~Organizations}$

Panelist speaker, Diversity Workshop and Mentoring Program, "Grappling with and Overcoming Isolation," Joint Statistics Meeting 2022	2022
Speaker, GRAD-Future Workshop, NC State University	2022
Eastern Northern American Region/International Biometric Society (ENAR) Regional Advisory Board (RAB) Chair	2022-2023
Eastern Northern American Region/International Biometric Society (ENAR) Regional Advisory Board (RAB) Co-Chair	2020-2021
Mentor for Joint Statistical Meeting Diversity Mentoring Program	2020-2021
Eastern Northern American Region/International Biometric Society (ENAR) Diversity Workshop Panelist	2020
Eastern Northern American Region/International Biometric Society (ENAR) Regional Advisory Board Member (RAB)	2019-2021
International Symposium on Forecasting Early Career Researcher Mentor	06/2019
American Statistical Association Biometrics Section Strategic Initiative Chair, "Developing the next Generation of Biostatisticians"	2018-
Biometrics Eastern Northern American Region/International Biometric Society (ENAR) Program Representative, Atlanta, GA	2017-2018
American Statistical Association Biometrics Section Strategic Initiative Co-Chair, "Developing the next Generation of Biostatisticians"	2016-2018
Student Paper Competition Judge, Western Northern American Region/Institute of Mathematical Sciences, Boise, ID	06/2015

# Scientific Review Groups and Expert Panels

Vanderbilt Biostatistics Development Awards Grant Reviewer	2022
Huntington Disease Society of America Scientific Advisory Board Member	2020-Present
UK Medical Research Council Grant Reviewer	2020
National Institutes of Health (NIH) Musculoskeletal Rehabilitation Sciences	2020
Study (MRS) Section Panel Member	
National Science Foundation CAREER Panel Member	2019
National Science Foundation Statistics Panel Member	2019
Natural Sciences and Engineering Research Council of Canada (NSERC) Mathematics and Statistics Discovery Program	2018
mathematics and statistics Discovery I rogram	

E-Rare Transnational research projects on hypothesis-driven use of multi-omic integrated approaches for discovery of diseases causes and/or functional validation in the context of rare diseases

2018

#### **Editorial Service**

Associate Editor of Australian & New Zealand Journal of Statistics 04/2021-Associate Editor of *Biostatistics* 01/2019-Journal Referee 01/2013-

Annals of Statistics

Australia New Zealand Journal of Statistics

**Bioinformatics** 

**Biometrics** 

**BMC** Bioninformatics

BMC Medical Research Methodology

The Canadian Journal of Statistics

Computational Statistics and Data Analysis

Hacettepe Journal of Mathematics and Statistics

Journal of the American Statistical Association

Journal of Multivariate Analysis

PLOS One

Science Reports

Statistica Sinica

Statistics

Statistics and Probability Letters

Statistics in Medicine

The American Statistician

The Canadian Journal of Statistics

Transportation Research Part A: Policy and Practice

#### **External Reviewer**

Tenure and Promotion Referee, The University of Sydney	04/2019
Tenure and Promotion Referee, Le Moyne College	04/2016
Doctoral dissertation of Jinqing Li, Macquarie University, Statistics Department, Australia	2014

Conference and Symposia Organization	
Co-Organizer, StatFest 2020, Indianapolis, IN	09/2020
Invited Session Organizer, "New directions for nonparametric methods in data science," International Society for Non-Parametric Statistics (ISNPS), Salerno, Italy	06/2018
Invited Session Organizer, "Rich data visualizations for informative health care decisions," Eastern Northern American Region/International Biometric Society (ENAR), Atlanta, GA	03/2018

Invited Session Organizer, "Dynamic modeling for timely health care decisions," Joint Statistical Meeting (JSM), Baltimore, MD	07/2017
Invited Session Organizer, "Innovative Techniques Towards More Precise Modeling," 61st Brazilian Regional Meeting, Salvador, Brazil*  *Cancelled due to Zika virus.	05/2016
Invited Session Organizer, "Innovative Techniques Towards Solving the Complexities of Biomarker Discovery," 2016 ENAR, Austin, TX	03/2016
Invited Session Organizer, "Navigating Your Career for Success at the NSF Career Award," 2015 SACNAS National Conference, National Harbor, MD	10/2015
Eastern Northern American Region/International Biometric Society (ENAR) Junior Researchers Workshop Co-Organizer, Miami, FL	03/2015
Invited Session Organizer, "Recent Advances in Spatial Statistics Techniques and their Applications to Public Health and Biological Sciences," Western Northern American Region/Institute of Mathematical Sciences, Boise, ID	06/2015
Service to UNC Chapel Hill	
Neuroscience Executive Advisory Board Member	2021-
Girls Talk Math Invited Honorarium Speaker	07/2021
Service to Biostatistics Department at UNC Chapel Hill	
Developed student workshop on how to engage with "over-your-head" seminar talks	08/2021
Master Exam Committee Member	2021-
Search Committee Member for Director of Collaborative Studies Coordinating Center (CSCC)	2021-
Neuroscience Executive Advisory Board Member	2021-
Seminar Organizer Co-Chair	2020-
Awards Committee Member	2020-
Service to Texas A&M University	
ADVANCE Early Career Faculty Mentor Irina Bobkova, Department of Mathematics, Texas A&M University	12/2019-12/2020
Panel Speaker, The Texas A&M System AGEP Alliance "The next steps after the post-doc: The do's and must do's"	11/2019
Research Committee Member, Texas A&M School of Public Health	09/2013-07/2018
Panel Speaker, "Why I Chose the Post-Doc Route," Alliance for Graduate Education and the Professoriate (TAMUS AGEP) Program	11/2017
Association of Former Students' College-Level Teaching Awards Committee Reviewer	06/2010-05/2011
Panel Speaker, Advice on Graduate School Admittance, 5th Annual TAMUS LSAMP Symposium	02/2009

## Service to Statistics Department at Texas A&M University

Faculty Advisory Committee Member	2019-2020
MS Program Committee Member (including online MS)	2018-2020
"Statistical Significance Workshop", Co-Organizer at Texas A&M University	2019
Undergraduate Commitee Member (including online MS)	2018-2019

# Service to Biostatistics and Epidemiology Department at Texas A&M University

Admissions Committee	01/2013-08/2018
Student Research Poster Competition Judge at Public Health Week	2014-2018
Department of Epidemiology and Biostatistics, Texas A&M School of Public Health Seminar Organizer	2013-2018
"Measurement Error and Complex Data Workshop" Co-Organizer Texas A&M University, College Station, TX	04/2016
Faculty Search Committee	2014-2015

# **Professional Development**

Heroic Public Speaking, Core and Grad, Amy and Michael Port	2023
Women ADVANCE Leadership Program, UNC Chapel Hill	2022-2023
Grant Foundry Coach Training Program, Marketing Your Science,	2021
LLC	
SciFoundry Leadership Program, Marketing Your Science, LLC	2020-2023
Team Leadership In Research, Stefanie Robel Consulting, LLC	2020-2022
Research Success Alliance, Marketing Your Science, LLC	2018-2022
Grant Foundry, Marketing Your Science, LLC	2018-2019
Faculty Success Program, National Center for Faculty Development and	2016-2019
Diversity, LLC	

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