

Contact Information

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[Blue text](#) hyperlinked throughout

A. Background**1. Education**

- Ph.D. in Statistics. Rice University/M.D. Anderson Cancer Center. December 2009.
 - Thesis: Bayesian Semiparametric and Flexible Models for Analyzing Biomedical Data. Advisor: Professor Peter Müller. GPA 4.0.
- M.A. in Statistics. Rice University. December 2007. Advisor: Professor Peter Müller.
- M.S. in Probability and Statistics. Universidad Nacional Autónoma de México (UNAM). December 2005.
 - Thesis: Bayesian Dirichlet Process Mixture Applications. Advisor: Professor Eduardo Gutiérrez Peña.
 - GPA 9.5 out of 10.
- B.S. in Mathematics. UNAM. December 2002.
 - Thesis: Convergence of Empirical Processes. Advisor: Professor Raúl Rueda.
 - GPA 9.9 out of 10

2. Honors

- Francisco Aranda Award for the second best M.S. thesis in Statistics in Mexico, 2005.
- *cum laude* for B.S. earned at UNAM, 2002.

3. Professional Experience

Sep '22-Present. Associate Professor. Department of Biostatistics and Data Science (BaDS). University of Texas Health Science Center at Houston- School of Public Health (UTSP-SPH)
Jan '15-Aug '22. Assistant Professor. BaDS. UTSP-SPH.
Aug '12-Jan '15. Assistant Professor. Department of Mathematics. University of Louisiana at Lafayette.
Aug '09-Aug '12. Post Doctoral Associate. Department of Statistics and Institute of Food and Agricultural Sciences, University of Florida. Supervisor: Professor George Casella.
June '07-Aug '07. Internship at the Division of Quantitative Sciences, M.D. Anderson Cancer Center. Houston, TX.

B. Research

Applications of statistical methods in biomedical studies, in particular, traumatic brain injury, electronic health records and genomics research. Bayesian Statistics: Survey sampling, Model Selection, Nonparametric, Bayes Factors, Markov Chain Monte Carlo Methods and objective Bayes.

1. Peer Reviewed Publications

(Click in research paper tittle to open hyperlink)

[Google Scholar](#) (as of 6/26/2023) Impact: Citations 1598; h-index 15; i10-index 23

Link to [PUBMED](#) and [Research Gate](#) 

Methodological

- [1] Terrance D. Savitsky, **Luis G. León-Novelo***, and Helen Engle. [Bayesian Inference for Repeated Measures Under Informative Sampling](#). *Journal of Official Statistics*, 40(1):161–189, 2024.
- [2] Jacky C. Kuo, Wenyaw Chan, **Luis Leon-Novelo**, David R. Lairson, Armand Brown, and Kayo Fujimoto. [Latent classification model for censored longitudinal binary outcome](#). *Statistics in Medicine*, 43(20):3943–3957.
- [3] Esther Ngan, Wenyaw Chan, **Luis Leon-Novelo**, and Valory Pavlik. [Estimation of non-monotonic transition rates in a semi-Markov process with covariates adjustments and application to caregivers' stress data](#). *Statistics in Medicine*, 42(30):5646–5656, 2023. PMID:37807023.
- [4] Jie Zhu, **Luis Leon Novelo**, and Ashraf Yaseen. [Incorporating Uncertainty Quantification for the Performance Improvement of Academic Recommenders](#). *Knowledge*, 3(3):293–306, 2023.
- [5] Stacia M DeSantis, **Luis G León-Novelo***, Michael D Swartz, Ashraf S Yaseen, Melissa A Valerio-Shewmaker, Yashar Talebi, Frances A Brito, Jessica A Ross, Harold W Kohl III, Sarah E Messiah, et al. [Methodology to estimate natural-and vaccine-induced antibodies to SARS-CoV-2 in a large geographic region](#). *PloS one*, 17(9):e0273694, 2022.
- [6] Katrina Sherbina, **Luis G Leon-Novelo**, Sergey V Nuzhdin, Lauren M McIntyre, and Fabio Marroni. [Power Calculator for Detecting Allelic Imbalance Using Hierarchical Bayesian Model](#). *BMC Research Notes*, 14:436, 2021.
- [7] **Luis G. León-Novelo** and Terrance D. Savitsky. [Fully Bayesian Estimation under Dependent and Informative Cluster Sampling](#). *Journal of Survey Statistics and Methodology*, 11(2):484–510, 12 2021. smab037, [arxiv version](#).
- [8] **Luis G. León-Novelo** and Terrance D. Savitsky. [Fully Bayesian estimation under informative sampling](#). *Electronic Journal of Statistics*, 13(1):1608 – 1645, 2019.
- [9] **Luis G León-Novelo**, Alison R Gerken, Rita M Graze, Lauren M McIntyre, and Marroni Fabio. [Direct Testing for Allele-Specific Expression Differences Between Conditions](#). *G3: Genes Genomes Genetics*, 8(2):447–460, 2018. PMID: 29167272.
- [10] Xiaowei Wu, Ting Guan, Dajiang J Liu, **Luis G León-Novelo**, and Dipankar Bandyopadhyay. [Adaptive-weight burden test for associations between quantitative traits and genotype data with complex correlations](#). *The annals of applied statistics*, 12(3):1558, 2018. PMID: 30214655.
- [11] Matthew D Koslovsky, Michael D Swartz, Wenyaw Chan, **Luis Leon-Novelo**, Anna V Wilkinson, Darla E Kendzor, and Michael S Businelle. [Bayesian variable selection for multistate Markov models with interval-censored data in an ecological momentary assessment study of smoking cessation](#). *Biometrics*, 74(2):636–644, 2018. PMID: 29023626.

- [12] M. D. Koslovsky, M. D. Swartz, **L. Leon-Novelo**, W. Chan, and A. V. Wilkinson. [Using the EM algorithm for Bayesian variable selection in logistic regression models with related covariates](#). *Journal of Statistical Computation and Simulation*, 88(3):575–596, 2018. PMID: 29731525.
- [13] **Luis G León Novelo**, Andrew Womack, Hongxiao Zhu, and Xiaowei Wu. [A Bayesian analysis of quantal bioassay experiments incorporating historical controls via Bayes factors](#). *Statistics in medicine*, 36(12):1907–1923, 2017. PMID: 28106916.
- [14] **Luis León-Novelo**, Claudio Fuentes, and Sarah Emerson. [Marginal likelihood estimation of negative binomial parameters with applications to RNA-seq data](#). *Biostatistics*, 18(4):637–650, 2017. PMID: 28369228.
- [15] Justin M Fear, **Luis G León-Novelo**, Alison M Morse, Alison R Gerken, Kjong Van Lehman, John Tower, Sergey V Nuzhdin, and Lauren M McIntyre. [Buffering of genetic regulatory networks in *Drosophila melanogaster*](#). *Genetics*, pages genetics–116, 2016. PMID: 27194752.
- [16] **Luis G León-Novelo**, Lauren M McIntyre, Justin M Fear, and Rita M Graze. [A flexible Bayesian method for detecting allelic imbalance in RNA-seq data](#). *BMC genomics*, 15(1):920, 2014. PMID:25339465.
- [17] Andrew J Womack, **Luis León-Novelo**, and George Casella. [Inference from Intrinsic Bayes’ procedures under model selection and uncertainty](#). *Journal of the American Statistical Association*, 109(507):1040–1053, 2014.
- [18] K Krishnamoorthy and **Luis León-Novelo**. [Small sample inference for gamma parameters: one-sample and two-sample problems](#). *Environmetrics*, 25(2):107–126, 2014.
- [19] **Luis G León-Novelo**, Peter Müller, Wadih Arap, Mikhail Kolonin, Jessica Sun, Renata Pasqualini, and Kim-Anh Do. [Semiparametric Bayesian inference for phage display data](#). *Biometrics*, 69(1):174–183, 2013. PMID: 23339534.
- [20] **Luis G León-Novelo**, Peter Müller, Wahid Arap, Jessica Sun, Renata Pasqualini, and Kim-Anh Do. [Bayesian decision theoretic multiple comparison procedures: An application to phage display data](#). *Biometrical Journal*, 55(3):478–489, 2013. PMID:23281047.
- [21] **Luis Leon-Novelo**, Elías Moreno, and George Casella. [Objective Bayes model selection in probit models](#). *Statistics in medicine*, 31(4):353–365, 2012. PMID:22162041.
- [22] **LG Leon-Novelo**, B Nebiyu Bekele, Peter Müller, F Quintana, and K Wathen. [Borrowing strength with nonexchangeable priors over subpopulations](#). *Biometrics*, 68(2):550–558, 2012. PMID: 22040065.
- [23] **Luis Leon-Novelo** and George Casella. [Prior influence in linear regression when the number of covariates increases to infinity](#). *Statistics & Probability Letters*, 82(3):438–445, 2012.
- [24] **LG Leon-Novelo**, X Zhou, B Nebiyu Bekele, and P Müller. [Assessing toxicities in a clinical trial: Bayesian inference for ordinal data nested within categories](#). *Biometrics*, 66(3):966–974, 2010. PMID: 19930188.

Applications

- [25] Rylea Ranum, Michael Williams, **Luis Leon Novelo**, Xiangyi Liu, and Mark Sherer. [Sociodemographic and Injury Characteristics Contribute to Ethnoracial Differences in Societal Participation After TBI](#). *Archives of Physical Medicine and Rehabilitation*, 106(4):e86, 2025.
- [26] Jan O Jansen, Claudia Pedroza, **Luis Leon Novelo**, Tianyao Hao, Gina R DeWildt, Charles F Coton, Kiran Mansoor, Shannon W Stephens, Marisa B Marques, James R Stubbs, et al. [Trauma resuscitation with Low-Titer Group O Whole Blood Or Products: study protocol for a randomized clinical trial \(the TROOP trial\)](#). *Trials*, 26(1):266, 2025.

- [27] Hamad Yadikar, Firas H. Kobeissy, Claudia Robertson, Spyridoula Tsetsou, John B. Williamson, Damon G. Lamb, Amy K. Wagner, Todd Kibaugh, Shih-Han Kao, Zhifeng Kou, Robert D. Welch, Jose-Miguel Yamal, Luis **Leon-Novelo**, Richard Rubenstein, and Kevin K. W. Wang. [Early cerebrospinal fluid elevations of pTau-217 in severe traumatic brain injury subjects](#). *Frontiers in Neurology*, Volume 16 - 2025, 2025.
- [28] Susan Robinson-Whelen, Rosemary B Hughes, Diana Gonzalez, Linda Norah-Davis, **Luis G Leon-Novelo**, Esther Ngan, Megan L Whelen, Lisa Wenzel, and Heather B Taylor. [Promoting psychological health in women with spinal cord injury: A randomized trial](#). *Rehabilitation psychology*, 2025.
- [29] Oladipo K Afolayan, Jessica Velazquez, Samuel Tundealao, Esteve Fernández, Cristina Martínez, **Luis Leon-Novelo**, Javier Retamales, and Irene Tamí-Maury. [Trends and Association between Smoking and the Socio-Demographic Index Among 11 South American Countries, 1990–2019](#). *Substance Use & Misuse*, 60(4):566–576, 2025. PMID: 39846443.
- [30] Mark Sherer, Shannon Juengst, Angelle M Sander, **Luis Leon-Novelo**, Xiangyi Liu, Jay Bogaards, Wilma Chua, and Kim Tran. [Mood Tracker: A Randomized Controlled Trial of a Self-Monitoring Intervention for Emotional Distress After Traumatic Brain Injury](#). *The Journal of Head Trauma Rehabilitation*, 40(1):E13–E22, 2025. PMID: 38833719.
- [31] Emily Dudek, Michael W. Williams, Chung Lin (Novelle) Kew, Annalyn DeMello, Brittany Wright, Alexandra B. Holland, Alyssa Day-Gorman, Alexa S. Gonzalez, **Luis Leon-Novelo**, Xiangyi Liu, and Shannon B. Juengst. [A Directed Content Analysis for Greatest Problems Among People With and Without Traumatic Brain Injury](#). *Archives of Physical Medicine and Rehabilitation*, 106(1):42–50, 2025.
- [32] Emily Dudek, Michael Williams, Chung Lin Novelle Kew, Alyssa Day-Gorman, Annalyn DeMello, Alexa Gonzalez, Alexandra Holland, **Luis Leon Novelo**, Xiangyi Liu, Brittany Wright, et al. [Exploring Self-Reported Recent Greatest Problems among Individuals With and Without Chronic Traumatic Brain Injury via Open-Text Survey Responses](#). *Archives of Physical Medicine and Rehabilitation*, 105(4):e117, 2024.
- [33] Brittany Wright, Leia Vos, Fedora Biney, Annalyn DeMello, Zinat Taiwo, **Luis Leon Novelo**, Michael Williams, and Shannon Juengst. [Neurobehavioral Profiles in Chronic Traumatic Brain Injury](#). *Archives of Physical Medicine and Rehabilitation*, 105(4):e101, 2024.
- [34] Ashraf Yaseen, Stacia M. DeSantis, Rachit Sabharwal, Yashar Talebi, Michael D. Swartz, Shiming Zhang, **Luis Leon Novelo**, Cesar L. Pinzon-Gomez, Sarah E. Messiah, Melissa Valerio-Shewmaker, Harold W. Kohl, III, Jessica Ross, David Lakey, Jennifer A. Shuford, Stephen J. Pont, and Eric Boerwinkle. [Baseline characteristics of SARS-CoV-2 vaccine non-responders in a large population-based sample](#). *PLOS ONE*, 19(5):1–11, 05 2024.
- [35] Arjun V Jogimahanti, Kevin A Honan, Talha Ahmed, **Luis Leon-Novelo**, and Tarif Khair. [The Effect of SGLT-2i and GLP-1RA on Major Cardiovascular Conditions: A Meta-Analysis](#). *Journal of Cardiology and Cardiovascular Medicine*, 9(1):014–025, 2024.
- [36] Jennifer E.S. Beauchamp, Mengxi Wang, **Luis G. Leon Novelo**, Caroline Cox, Thomas Meyer, Christopher Fagundes, Sean I. Savitz, Anjail Sharrief, Deniz Dishman, and Constance Johnson. [Feasibility and user-experience of a virtual environment for social connection and education after stroke: A pilot study](#). *Journal of Stroke and Cerebrovascular Diseases*, 33(2):107515, 2024.
- [37] Shannon B Juengst, Brittany Wright, Leia Vos, Robert Perna, Michael Williams, Emily Dudek, Annalyn DeMello, Zinat Taiwo, and **Luis Leon Novelo**. [Emotional, Behavioral, and Cognitive Symptom Associations With Community Participation in Chronic Traumatic Brain Injury](#). *Journal of Head Trauma Rehabilitation*, 39(2):E83–E94, 2024. PMID: 37582176.

- [38] Shannon B Juengst, Brittany Wright, Annalyn DeMello, Leia Vos, Fedora Biney, **Luis Leon** Novelo, and Michael Williams. [Neurobehavioral Symptom Profiles for the Behavioral Assessment Screening Tool in Chronic Traumatic Brain Injury](#). *The Journal of Head Trauma Rehabilitation*, pages 10–1097, 2024.
- [39] Monique R Pappadis, Angelle M Sander, Shannon B Juengst, **Luis Leon-Novelo**, Esther Ngan, Kathleen R Bell, John D Corrigan, Simon Driver, Laura E Dreer, and Anthony H Lequerica. [The relationship of health literacy to health outcomes among individuals with traumatic brain injury: a traumatic brain injury model systems study](#). *The Journal of Head Trauma Rehabilitation*, 39(2):103–114, 2024. PMID: 37862139.
- [40] Zinat Taiwo, Angelle M Sander, Shannon B Juengst, Xiangyi Liu, **Luis Leon Novelo**, Flora M Hammond, Therese M O’Neil-Pirozzi, Paul B Perrin, and Nicholas Gut. [Association Between Participation and Satisfaction With Life Over Time in Older Adults With Traumatic Brain Injury: A TBI Model Systems Study](#). *The Journal of Head Trauma Rehabilitation*, pages 10–1097, 2024.
- [41] Stacia M DeSantis, Ashraf Yaseen, Tianyao Hao, **Luis León-Novelo**, Yashar Talebi, Melissa A Valerio-Shewmaker, Cesar L Pinzon Gomez, Sarah E Messiah, Harold W Kohl III, Steven H Kelder, Jessica A Ross, Lindsay N Padilla, Mark Silberman, Samantha Tuzo, David Lakey, Jennifer A Shuford, Stephen J Pont, Eric Boerwinkle, and Michael D Swartz. [Incidence of SARS-CoV-2 breakthrough infections after vaccination in adults: A population-based survey through March 1, 2023](#). *Open Forum Infectious Diseases*, page ofad564, 11 2023.
- [42] Angelle M. Sander, Kelsey Christensen, Karina Loyo, Michael Williams, **Luis Leon-Novelo**, Esther Ngan, Stephanie Agtarap, Aaron M. Martin, Dawn Neumann, Flora M. Hammond, Robin Hanks, and Jeanne Hoffman. [Coping With Chronic Pain After Traumatic Brain Injury: Role of Race/Ethnicity and Effect on Participation Outcomes in a TBI Model Systems Sample](#). *Archives of Physical Medicine and Rehabilitation*, 104(7):1099–1106, 2023.
- [43] Stacia M DeSantis, Ashraf Yaseen, Tianyao Hao, **Luis León-Novelo**, Yashar Talebi, Melissa A Valerio-Shewmaker, Cesar L Pinzon Gomez, Sarah E Messiah, Harold W Kohl, Steven H Kelder, et al. [Incidence and Predictors of Breakthrough and Severe Breakthrough Infections of SARS-CoV-2 After Primary Series Vaccination in Adults: A Population-Based Survey of 22 575 Participants](#). *The Journal of Infectious Diseases*, 227(10):1164–1172, 2023.
- [44] Angelle M. Sander, Monique R. Pappadis, Shannon B. Juengst, **Luis Leon-Novelo**, Esther Ngan, John D. Corrigan, Laura E. Dreer, Simon Driver, and Anthony H. Lequerica. [Characterizing Health Literacy and Its Correlates Among Individuals With Traumatic Brain Injury \(TBI\): A TBI Model Systems Study](#). *Journal of Head Trauma Rehabilitation*, 39(2):95–102, March-April 2024.
- [45] Adam R Kinney, Nazanin H Bahrani, Lisa A Brenner, Angelle M Sander, Michael Williams, Karina Loyo, **Luis Leon-Novelo**, Esther Ngan, Dawn Neumann, Stephanie Agtarap, Aaron M. Martin, Jeanne Hoffman, Kelsey Christensen, and Flora M. Hanks, Robin Hammond. [Disparities in Chronic Pain Experience and Treatment History Among Persons With Traumatic Brain Injury: A Traumatic Brain Injury Model Systems Study](#). *The Journal of Head Trauma Rehabilitation*, 38(2):125–136, 2023.
- [46] Rya K. Clark, Argyrios Stampas, Kirk W. Kerr, Jeffrey L. Nelson, Suela Sulo, **Luis Leon-Novelo**, Esther Ngan, and Dehuti Pandya. [Evaluating the impact of using a wound-specific oral nutritional supplement to support wound healing in a rehabilitation setting](#). *International Wound Journal*, 20(1):145–154, 2023.
- [47] Susan Robinson-Whelen, Rosemary Hughes, Diana Gonzalez, Linda Norah-Davis, **Leon-Novelo Luis**, Esther Ngan, and Heather Taylor. [A RCT of a Psychological Health Promotion Program for Women with SCI: Examining Efficacy and Mechanisms](#). *Archives of Physical Medicine and Rehabilitation*, 103(12):e50, 2022.
- [48] Ashwin Patel, Dorothy Kim Waller, **Luis Leon Novelo**, Jonathan M Flanagan, and Vivien A Sheehan. [Reduction in Opioid Use and Clinical Complications in Vitamin D Deficient Pediatric SCD Patients Following Vitamin D Replacement](#). *Blood*, 140(Supplement 1):8266–8267, 2022.

- [49] Leia C Vos, Esther Ngan, **Luis Leon Novelo**, Michael W Williams, Flora M Hammond, William C Walker, Allison N Clark, Andrea P Ochoa Lopez, Shannon B Juengst, and Mark Sherer. [Predictors of Missed Follow-up Visits in the National Traumatic Brain Injury Model Systems Cohort Study](#). *Archives of physical medicine and rehabilitation*, 2022.
- [50] Mark Sherer, Allison N. Clark, Angelle M. Sander, Margaret A. Struchen, Jay Bogaards, **Luis Leon-Novelo**, and Esther Ngan. [Relationships of self-awareness and facial affect recognition to social communication ability in persons with traumatic brain injury](#). *Neuropsychological Rehabilitation*, 32(8):2013–2028, 2022. PMID: 35666684.
- [51] Sarah E Messiah, Stacia M DeSantis, **Luis G Leon-Novelo**, Yashar Talebi, Frances A Brito, Harold W Kohl, Melissa A Valerio-Shewmaker, Jessica A Ross, Michael D Swartz, Ashraf Yaseen, et al. [Durability of SARS-CoV-2 antibodies from natural infection in children and adolescents](#). *Pediatrics*, 149(6), 2022.
- [52] Michael D. Swartz, Stacia M. DeSantis, Ashraf Yaseen, Frances A. Brito, Melissa A. Valerio-Shewmaker, Sarah E. Messiah, **Luis G. Leon-Novelo**, III Kohl, Harold W., Cesar L. Pinzon-Gomez, Tianyao Hao, Shiming Zhang, Yashar Talebi, Joy Yoo, Jessica R. Ross, Michael O. Gonzalez, Leqing Wu, Steven H. Kelder, Mark Silberman, Samantha Tuzo, Stephen J. Pont, Jennifer A. Shuford, David Lakey, and Eric Boerwinkle. [Antibody duration after infection from SARS-CoV-2 in the Texas Coronavirus Antibody Response Survey](#). *The Journal of Infectious Diseases*, 05 2022. jiac167.
- [53] Jose-Miguel Yamal, Savitri Appana, Mengxi Wang, **Luis Leon Novelo**, Eric Bakota, Yuanqing Ye, Shreela Sharma, Alanna Morrison, Dritana Marko, Stephen Linder, et al. [Trends and correlates of breakthrough infections with SARS-CoV-2](#). *Frontiers in Public Health*, page 1082, 2022.
- [54] Theresa H. Nguyen, Aaron P. Thrift, Gyanprakash A. Ketwaroo, Xianglin L. Du, **Luis Leon Novelo**, Rollin George, Daniel G. Rosen, and Hashem B. El-Serag. [External validation of a model determining risk of neoplastic progression of Barrett’s esophagus in a cohort of U.S. veterans](#). *Gastrointestinal Endoscopy*, 2022. PMID: 34998796.
- [55] Gloria Chen, Jacob Siahaan, **Luis León-Novelo**, Imran Rizvi, Aleksandra De Golovine, Angelina Edwards, Akshita Pai, and Wasim Dar. [The impact of health literacy on kidney transplant listing](#). *Progress in Transplantation*, 2022.
- [56] Leia Vos, Michael W. Williams, Lisa Spielman, Andrea Ochoa, Esther Ngan, **Luis Leon Novelo**, and Mark Sherer. [Understanding loss to follow-up in a longitudinal study of people with traumatic brain injury](#). *Brain Injury*, pages 1–9, 2021. PMID: 34403276.
- [57] Angelle M. Sander, Allison N. Clark, David B. Arciniegas, Kim Tran, **Luis Leon-Novelo**, Esther Ngan, Jay Bogaards, Mark Sherer, and Robyn Walser. [A randomized controlled trial of acceptance and commitment therapy for psychological distress among persons with traumatic brain injury](#). *Neuropsychological Rehabilitation*, 31(7):1105–1129, 2021. PMID: 32408846.
- [58] Brecca Miller, Alison Morse, Jacqueline Borgert, Ziaho Liu, Kelsey Sinclair, Gavin Gamble, Fei Zou, Jeremy Newman, **Luis Leon-Novelo**, Fabio Marroni, and Lauren McIntyre. [Testcrosses are an efficient strategy for identifying cis regulatory variation: Bayesian analysis of allele specific expression \(BayesASE\)](#). *G3: Genes Genomes Genetics*, 2021. PMID:33772539.
- [59] George Williams, Vahed Maroufy, Laila Rasmy, Derek Brown, Duo Yu, Hai Zhu, Yashar Talebi, Xueying Wang, Emy Thomas, Gen Zhu, Ashraf Yaseen, Hongyu Miao, **Luis Leon Novelo**, Degui Zhi, Stacia DeSantis, Hongjian Zhu, Jose-Miguel Yamal, David Aguilar, and Hulin Wu. [Vasopressor treatment and mortality following nontraumatic subarachnoid hemorrhage: a nationwide electronic health record analysis](#). *Neurosurgical Focus*, 48(5):E4, 2020. PMID: 32357322.
- [60] Mark Sherer, Angelle M. Sander, Jennie Ponsford, Leia Vos, Julia M.P. Poritz, Esther Ngan, and **Luis Leon Novelo**. [Patterns of Cognitive Test Scores and Symptom Complaints in Persons with TBI Who](#)

- [Failed Performance Validity Testing](#). *Journal of the International Neuropsychological Society*, page 1–7, 2020. PMID: 32456725.
- [61] Jitesh B Shewale, Arlene M Correa, Eric L Brown, **Luis G Leon-Novelo**, Alan G Nyitray, Mara B Antonoff, Wayne L Hofstetter, Reza J Mehran, David C Rice, Garrett L Walsh, et al. [Time trends of perioperative outcomes in early stage non-small cell lung cancer resection patients](#). *The Annals of Thoracic Surgery*, 109(2):404–411, 2020. PMID: 31539514.
- [62] Jitesh B Shewale, Erin M Corsini, Arlene M Correa, Eric L Brown, **Luis G Leon-Novelo**, Alan G Nyitray, Mara B Antonoff, Wayne L Hofstetter, Reza J Mehran, David C Rice, et al. [Time trends and predictors of survival in surgically resected early-stage non-small cell lung cancer patients](#). *Journal of surgical oncology*, 2020. PMID: 32356321.
- [63] Leia Vos, Michael W Williams, Julia MP Poritz, Esther Ngan, **Luis Leon-Novelo**, and Mark Sherer. [The Discrepancy Between Cognitive Complaints and Neuropsychological Test Findings in Persons With Traumatic Brain Injury](#). *The Journal of Head Trauma Rehabilitation*, 2020. PMID: 32108707.
- [64] Mark Sherer, Julia MP Poritz, David Tulskey, Pamela Kisala, **Luis Leon-Novelo**, and Esther Ngan. [Conceptual structure of health-related quality of life for persons with traumatic brain injury: confirmatory factor analysis of the TBI-QOL](#). *Archives of physical medicine and rehabilitation*, 101(1):62–71, 2020. PMID: 28527644.
- [65] Julia MP Poritz, Mark Sherer, Pamela A Kisala, David Tulskey, **Luis Leon-Novelo**, and Esther Ngan. [Responsiveness of the Traumatic Brain Injury–Quality of Life \(TBI-QOL\) Measurement System](#). *Archives of physical medicine and rehabilitation*, 101(1):54–61, 2020. PMID:29407517.
- [66] Leia Vos, Gale G Whiteneck, Esther Ngan, **Luis Leon-Novelo**, and Mark Sherer. [Rasch analysis of postconcussive symptoms: development of crosswalks and the brain injury symptom scale](#). *Archives of physical medicine and rehabilitation*, 100(10):1844–1852, 2019. PMID: 31129144.
- [67] Leia Vos, Gale G Whiteneck, Esther Ngan, **Luis Leon Novelo**, Lindsey M Harik, and Mark Sherer. [Comparison of the Neurobehavioral Symptom Inventory and the Rivermead Postconcussion Symptoms Questionnaire](#). *Brain Injury*, 33(9):1165–1172, 2019. PMID: 31304774.
- [68] Julia MP Poritz, Leia Vos, Esther Ngan, **Luis Leon-Novelo**, and Mark Sherer. [Gender differences in employment and economic quality of life following traumatic brain injury](#). *Rehabilitation psychology*, 64(1):65, 2019. PMID: 30346201.
- [69] Julia MP Poritz, Lindsey M Harik, Leia Vos, Esther Ngan, **Luis Leon-Novelo**, and Mark Sherer. [Perceived stigma and its association with participation following traumatic brain injury](#). *Stigma and Health*, 4(1):107, 2019.
- [70] Angelle M Sander, Allison N Clark, Laura M van Veldhoven, Robin Hanks, Tessa Hart, **Luis Leon Novelo**, Esther Ngan, and David B Arciniegas. [Factor analysis of the everyday memory questionnaire in persons with traumatic brain injury](#). *The Clinical Neuropsychologist*, 32(3):495–509, 2018. PMID: 28849703.
- [71] Matthew D Koslovsky, Emily T Hébert, Michael D Swartz, Wenyaw Chan, **Luis Leon-Novelo**, Anna V Wilkinson, Darla E Kendzor, and Michael S Businelle. [The time-varying relations between risk factors and smoking before and after a quit attempt](#). *Nicotine & Tobacco Research*, 2017. PMID: 29059413.
- [72] Mark Sherer, Jennie Ponsford, Amelia Hicks, **Luis Leon-Novelo**, Esther Ngan, and Angelle M Sander. [Cross-validation of a classification system for persons with traumatic brain injury in the posthospital period](#). *Journal of head trauma rehabilitation*, 32(5):E17–E25, 2017. PMID: 28195953.
- [73] Kaisa M Kemppainen, Alexandria N Ardisson, Austin G Davis-Richardson, Jennie R Fagen, Kelsey A Gano, **Luis G León-Novelo**, Kendra Vehik, George Casella, Olli Simell, Anette G Ziegler, et al. [Early childhood gut microbiomes show strong geographic differences among subjects at high risk for type 1 diabetes](#). *Diabetes care*, 38(2):329–332, 2015. PMID:25519450.

- [74] **Luis León-Novelo**, Kaisa M Kemppainen, Alexandria Ardissonne, Austin Davis-Richardson, Jennie Fagen, Kelsey Gano, Eric W Triplett, TEDDY Study Group, et al. [Two applications of permutation tests in biostastics](#). *Boletín de la Sociedad Matemática Mexicana*, 19(2):255, 2013. PMID:25221355.
- [75] RM Graze, **LL Novelo**, V Amin, JM Fear, G Casella, SV Nuzhdin, and LM McIntyre. [Allelic imbalance in Drosophila hybrid heads: exons, isoforms, and evolution](#). *Molecular biology and evolution*, 29(6):1521–1532, 2012. PMID: 22319150.
- [76] Adriana Giongo, Kelsey A Gano, David B Crabb, Nabanita Mukherjee, **Luis L Novelo**, George Casella, Jennifer C Drew, Jorma Ilonen, Mikael Knip, Heikki Hyöty, et al. [Toward defining the autoimmune microbiome for type 1 diabetes](#). *The ISME journal*, 5(1):82, 2011. PMID: 20613793.

C. Presentations and Posters

Listing only when I am the presenter.

1. Invited Presentations

1. Specifying a model-informed prior using subject-level historical control data for a phase III RCT of trauma resuscitation patients requiring large volume blood transfusion. ICSA. University of Connecticut, Storrs, CT, June 17, 2025.
2. [Bayesian Estimation of Multilevel Modeling with Survey Data](#). Panelist along with Yajuan Si, Matt Williams and Terrance Savitsky. JSM, 2023. Toronto, Ontario, Canada August 7, 2023.
3. [Fully Bayesian Estimation under Informative Sampling](#). Statistics Department Seminar. Oregon State University. Corvallis, OR, March 4, 2019
4. Graduate degree in Statistics: Are you in or out? Mathematical Modelling Journeys. Casa Libertad, Autonomus University of Mexico City Iztapalapa campus. Mexico City, Nov 21, 2018.
5. [Fully Bayesian Estimation under Informative Sampling](#). Department of Probability and Statistics Seminar. National Autonomous University of Mexico, Mexico City, MX, March 12, 2018; and 13th Congress of Latin American Statistical Societies (CLATSE), Guadalajara, MX, Oct 4, 2018.
6. Marginal Likelihood Estimation of Negative Binomial Parameters with Applications to RNA-Seq Data. Department of Statistics Missouri Colloquium Series. University of Missouri, Columbia, MO, September 30, 2016.
7. Bayesian Analysis of Quantal Bioassay Experiments via Bayes Factors and Assessing Toxicities in a Clinical Trial. University of Missouri School of Medicine, Columbia, MO, September 29, 2016.
8. Two Bayesian Applications of Negative Binomial Models for the Analysis of RNA Next Generation Sequencing Data; Oregon State University Statistics Department Weekly Seminar. Corvallis, OR, October 29, 2015.
9. [Controlling for Systematic Bias in Allelic Imbalance Estimation Using a Negative Binomial Bayesian Model](#); 2015 Lloyd Roeling UL Lafayette Mathematics Conference: Statistics. Lafayette, LA, November 20 -21 2015.
10. Assessing Toxicities in a Clinical Trial: Bayesian Inference for Ordinal Nested in Categorical Data; [StatFest](#), University of Nevada at Reno, November 15, 2014.
11. A Bayesian Analysis of Bioassay Experiments. The 2013 Annual Meeting of the WNAR/IMS, Los Angeles, CA, June 16-19, 2013. Also presented (as contributed) at the ENAR 2015 Spring Meeting, Miami, FL, March 15-18, 2015.
12. Semiparametric Bayesian inference for phage display experiments. Probability and Statistics Seminar, IIMAS, UNAM, Mexico City, May 19, 2008
13. Objective Bayes Model Selection in Probit Models. JSM, Miami, FL, 2011; SACNAS, San Jose, CA, 2011.
14. Non-Parametric Bayesian Modeling of Success Rates in a Phase II Clinical Trial with Patients Presenting Different Subtypes of the Disease under Study. University of Florida Statistics Seminar, Gainesville, FL, 2009.

2. Contributed Presentations

1. Fully Bayesian Estimation under Dependent and Informative Cluster Sampling. ICSA 2020 Applied Statistics Symposium, Houston TX. Dec 13-16, 2020.
2. Fully Bayesian Estimation under Informative Sampling. JSM 2019, Denver, CO, July 31, 2019.
3. Bayesian Analysis of Survey Data with Sampling Weights. JSM 2017, Baltimore, MD.
4. Bayesian Analysis of Quantal Bioassay Experiments Incorporating Historical Controls via Bayes Factors. JSM 2016, Chicago, IL.
5. Controlling for Systematic Bias in Allelic Imbalance Estimation Using a Negative Binomial Bayesian Model. ENAR 2016 Spring Meeting, Austin, TX.
6. A Bayesian Analysis of Bioassay Experiments. Louisiana Chapter of the ASA: Fall 2014 Meeting. Lafayette, LA. Nov 7, 2014.
7. A Bayesian Analysis of Bioassay Experiments. Louisiana Chapter of the ASA: Spring 2013 Meeting. Lafayette, LA. April 26, 2013.
8. Borrowing Strength with Non-Exchangeable Priors over Subpopulations. 8th Bayesian Non Parametric Workshop, Veracruz, Mexico, 2011.
9. Non-Parametric Bayesian Modeling of Success Rates in a Phase II Clinical Trial with Patients Presenting Different Subtypes of the Disease under Study. ENAR, San Antonio, TX, 2009; WNAR, Portland, OR, 2009; University of Florida Statistics Seminar, Gainesville, FL, 2009.
10. Bayesian Modeling for High Dimensional Count Data. ENAR, Arlington, VA, 2008; Fall Conference on Statistics in Biology, Iowa State University, Ames, IA, 2008.
11. Assessing Toxicities in a Clinical Trial: Bayesian Inference for Ordinal Data Nested within Categories. Annual meeting of the Mexican Statistical Association, Veracruz, Mexico, 2008.

3. Posters

1. Bayesian Analysis of Survey Data with Sampling Weights. 2017 ENAR Spring meeting, Washington, DC, 2017
2. A Bayesian Analysis of Bioassay Experiments. ISBA meeting, Cancun, Mexico, 2014 and SRCOS Summer Research Conference 2014, Galveston TX 2014.
3. Bayesian Modeling for High Dimensional Count Data. Ninth Valencia International Meeting on Bayesian Statistics, Valencia, Spain, 2010.
4. Assessing Toxicities in a Clinical Trial: Bayesian Inference for Ordinal Data Nested within Categories. Bayesian Biostatistics Conference, Houston, TX, 2009.

D. Teaching

1. Classes

- At University of Texas Health Science Center at Houston- School of Public Health (with evaluation score out of 5):
 - PH-1998: R Programming for Biostat & Data Science (developed) Fall 2022 (4.0)
 - PH1665: Introduction to Statistical and Data Science Programming (50% cotaught and developed) Fall 2020 (3.14)
 - PH1830: Categorical Data Analysis Spring: 2018 (4.4), 2020 (4.2), 2021 (4.25), 2023; Fall 2021 (3.12), 2022 (4.15)
 - PH1700: Intermediate Biostatistics Fall: 2015, 2016 (4.2), 2017 (3.8), 2018 (3.5), 2019 (3.9), 2022 (4.2) Spring 2016 (3.1); Summer 2020 (3.2)
 - PH1965: Bayesian Data Analysis Spring: 2015 (4), 2017 (4.8), 2019 (4.2), 2022 (4.33), 2023 (4.33) 2024 (4.14); Fall: 2020 (4.1)
- At the University of Louisiana at Lafayette:
 - Categorical Data Analysis. Fall 2014

- Applied Design of Experiment. Spring 2014
- Applied Regression Analysis. Fall: 2012 and 2013
- Elementary Statistics. Fall: 2012, 2013 and 2014
- At the University of Florida:
 - Markov Chain Monte Carlo. Fall 2011

E. Service

1. National

- NIH grant reviewer.
 1. Non-Pharmacological Clinical Feb 2024.
 2. Non-Pharmacological Clinical Trials June 2023.
 3. Early Phase Clinical Trials for Therapeutics and/or Diagnostics (R61/R33 Clinical Trial Required) (PAR-21-119, PAR-21-118). March 2022.
 4. Early Phase Clinical Trials for Therapeutics and/or Diagnostics (R61/R33 Clinical Trial Required) (PAR-21-119, PAR-21-118). November 2021.
- NSF Grant reviewer for DMS/NLM funding initiative (P191400). March 2019.
- DoD Grant reviewer
 1. Department of Defense CRRP. February 2025.
 2. Department of Defense DMRDP. January 2023.

2. At UTSPH School Level

- Poster Judge at “Research Day” every year since 2016 to 2021.
- Reviewer in UTSPH internal grants: PRIME 2018 and PRIME 2020.

3. At Department of Biostatistics and Data Science

- Member of the following committees:
 - Faculty Evaluation/Promotion/Mentoring;
 - Data Science Task Force;
 - Faculty Search Committees.
- From 2017 to 2025, member of the “Lem and Dixie Moye”, “Richard D. Remington”, “Robert H Bigelow”, “Robert Hardy and Morton Hawkins” endowed scholarship committee that selects students in our school for a \$1,000 award every summer.
- Poster session local organizer in the [STATFEST 2019](#) celebrated at UTSPH (Organized overall by Professor Adriana Perez), September 21, 2019. Houston, TX.
- Reviewer for [4th International Conference on Big Data and Information Analytics](#) (BigDIA organized by my Department); Dec 17-19, 2018.
- From 2016 to 2023. Categorical Data Analysis section of the annual PhD preliminary exam.