

LUIS MIGUEL MESTRE

Citizenship: United States of America (USA)

Address: 389 Whitney Avenue, Room # 312 New Haven, Connecticut 06511

Email: luis.mestre@yale.edu

Twitter handle: luis_mestre1

LinkedIn Profile: Luis Miguel Mestre

Position:

Summer 2023 – Present: Post Doctoral Fellow at Yale University, Yale School of Medicine, Department of Psychiatry, New Haven, CT

Education:

1. Summer 2023 - PhD in Epidemiology at Indiana University (IU) School of Public Health Bloomington-Bloomington, IN
Mentors: Maria A. Parker, Ph.D. & Roger S. Zoh, Ph.D.
Thesis: Associations between cigarette smoking, weight status and mortality, and morbidities among US adults
GPA: 3.85 out of 4.00
2. Summer 2018 - MS in Mathematical Statistics at University of Puerto Rico at Mayagüez (UPRM), Mayagüez, PR
Mentor: Dámaris Santana-Morant, Ph.D.
Thesis Project: Development and Effectiveness of Applets of Measures of Centre as a Teaching Tool
GPA: 3.82 out of 4.00
3. Spring 2016 - BS in Biomathematics at Universidad Metropolitana (UMET) (Currently Universidad Ana G. Méndez Cupey Campus), San Juan, Puerto Rico (PR)
Honor: *Magna Cum Laude*
Mentors: Luis F. de la Torre-Quintana, Ph.D. & Francisco Medina, Ph.D.
GPA: 3.77 out of 4.00

Peer-Reviewed Publications

1. Sanders, L. M., **Mestre, L. M.**, Ejima, K., Mehta, T., Keith, S. W., Maki, K. C., & Allison, D. B. (2023). Body Mass Index, Obesity, and Mortality—Part II: Weight Loss and Weight Cycling. *Nutrition Today*, 58(4), 158-164.
2. **Mestre, Luis M.** MS; Lartey, Stella T. PhD; Ejima, Keisuke PhD; Mehta, Tapan PhD; Keith, Scott PhD; Maki, Kevin C. PhD; Allison, David B. PhD. Body Mass Index, Obesity, and Mortality— Part I: Associations and Limitations. *Nutrition Today* 58(3):p 92-99, 5/6 2023. | DOI: 10.1097/NT.0000000000000609
3. Pavela, G., Yi, N., **Mestre, L.**, Xun, P., & Allison, D. B. (2023). Birth Weight Moderates the Association Between Obesity and Mortality Rate. *Annals of Epidemiology*.
4. Ejima K, Liu N, **Mestre LM**, Campos Gdl and Allison DB (2023), Conditioning on parental mating types can reduce necessary assumptions for Mendelian randomization. *Front. Genet.* 14:1014014. doi: 10.3389/fgene.2023.1014014
5. Vorland CJ, Chen X, Chusyd DE, **Mestre LM**, Dickinson SL, Allison DB, Brown AW. Re-Analysis and Additional Information Needed to Inform Conclusions. Comment on Halenova et al. Deuterium-Depleted Water as Adjuvant Therapeutic Agent for Treatment of Diet-

Induced Obesity in Rats. *Molecules* 2020, 25, 23. *Molecules*. 2022; 27(16):5186.
<https://doi.org/10.3390/molecules27165186>

6. **Luis Mestres**, David Allison, Keisuke Ejima, Nianjun Liu, Greg Pavela, Determining an Appropriate Statistical Model when Assessing the Association between Obesity and Mortality, *Current Developments in Nutrition*, Volume 6, Issue Supplement_1, June 2022, Page 38, <https://doi.org/10.1093/cdn/nzac047.038>
7. Pavela, G., Yi, N., **Mestres, L. M.**, Lartey, S., Xun, P., & Allison, D. B. (2022). The associations between relative and absolute body mass index with mortality rate based on predictions from stigma theory. *SSM-population health*, 19, 101200.
8. Pavela, G., Yi, N., **Mestres, L.**, Lartey, S., Xun, P., & Allison, D. (2021, December). The Association between Obesity and Mortality Is Conditional on Birthweight. In *OBESITY* (Vol. 29, pp. 172-172). 111 RIVER ST, HOBOKEN 07030-5774, NJ USA: WILEY.
9. Pavela, G., Allison, D., Xun, P., **Mestres, L.**, & Yi, N. (2020, October). The association between body mass index and mortality across generations. In *APHA's 2020 VIRTUAL Annual Meeting and Expo* (Oct. 24-28). APHA.
10. Owora, A. H., Dawson, J., Gadbury, G., **Mestres, L. M.**, Pavela, G., Mehta, T., ... & Allison, D. B. (2022). Randomisation can do many things—but it cannot “fail”. *Significance*, 19(1), 20-23.
11. **Luis Mestres**, Gregory Pavela, Nengjun Yi, Pengcheng Xun, David Allison, Assessing the Association Between Relative BMI and Mortality, *Current Developments in Nutrition*, Volume 5, Issue Supplement_2, June 2021, Page 36, https://doi.org/10.1093/cdn/nzab033_036
12. Vorland, C. J., **Mestres, L. M.**, Mendis, S. S., & Brown, A. W. (2020). *Within-group comparisons led to unsubstantiated conclusions in “Low-phytate wholegrain bread instead of high-phytate wholegrain bread in a total diet context did not improve iron status of healthy Swedish females: a 12-week, randomized, parallel-design intervention Study”*. *European Journal of Nutrition*, 59(6), 2813-2814.
13. **Mestres, L.M.**, Dickinson, S.L., Golzarri-Arroyo, L., & Allison, D.B. (2020). *Tortuous and torturous: Why publishing a critical letter to the editor is so difficult*. Published by Retraction Watch. <https://retractionwatch.com/2020/06/22/tortuous-and-torturous-why-publishing-a-critical-letter-to-the-editor-is-so-difficult/>
14. **Mestres, L. M.**, Dickinson, S. L., Golzarri-Arroyo, L., Brown, A. W., & Allison, D. B. (2020). *Data anomalies and apparent reporting errors in ‘Randomized controlled trial testing weight loss and abdominal obesity outcomes of moxibustion’*. *BioMedical Engineering OnLine*, 19(1), 1-3.
15. Vorland, C., Mora, P. P. M., **Mestres, L. M.**, Chen, X., Dickinson, S., Brown, A. W., & Allison, D. (2019). *Errors or irreproducibility in effect size calculations and incomplete reporting of results in “Systematic Review of the Effects of Blueberry on Cognitive Performance as We Age”*.
16. Golzarri-Arroyo, L., **Mestres, L. M.**, & Allison, D. B. (2019). *What’s new in understanding the risk associated with body size and shape? pears, apples, and olives on toothpicks*. *JAMA network open*, 2(7), e197336-e197336.

Fellowships / Grants

1. **Summer 2023 – Present** – Research Training Program in Substance Abuse Prevention: NIDA – **Award # 5T32DA019426-19** (PI: Jacob Tebes)
2. **Summer 2022 – Summer 2023** – Minding A Mid-America Gap: NIDA/NIAAA Epidemiology Research Training for Clinical Researchers and Clinicians in Currently Under-Served Areas Role: Pre doctoral trainee Service: **Award# R25DA051249** (PI: David B. Allison and Maria A. Parker)
3. **Spring 2020 – Spring 2022** – Obesity and Longevity Across Generations: National Institute of Aging (NIA) Diversity Supplement: **Award# 3R01AG057703-02S1** (PI: David B. Allison)
4. **Fall 2018 – Fall 2019** – Indiana University at Bloomington Dean of Students Fellowship
5. **Fall 2016 – Spring 2018** – University of Puerto Rico’s Teaching Assistantship
6. **Fall 2015-Spring 2016** - Science & Honors Scholarship of the Ana G. Méndez University System
7. **Fall 2012 – Spring 2015** - AGMUS Institute of Mathematics Scholarship (NSF Grant: **Award #0822404**)

Work Experience:

1. **Summer 2023 - Present:** Post Doctoral Fellow at Yale University School of Medicine Department of Psychiatry - The Consultation Center and The Tobacco Center
 - **Supervisors:** Krysten Bold, PhD and Marney White, PhD.
 - **Activities:** Data analyses, statistical consulting, project management of Randomized Clinical Trials (RCTs), grant writing application process, supervising IRB protocols, development and analysis of health behavior related data collection instruments,
2. **Fall 2022-Summer 2023:** Research Assistant at IU
 - **Supervisors:** Maria A. Parker, Ph.D.
 - **Activities:** leading discussion or lab, cigarette smoking research, and data analyses.
3. **Spring 2022 & Spring 2023:** Teaching Assistant (TA) at School of Informatics, IUB
 - a. **Supervisor:** Andreas “Andi” Bueckle, PhD & Michael Ginda, PhD
 - b. **Activities:** Course: Information Visualization (ENGR-E583/E483). Grading homework, projects, and quizzes, assisting students with content and material, and assisting instructor on class.
4. **Fall 2021:** Math Tutor at IU Athletics
 - a. **Supervisor:** Natalie Pyrz
 - b. **Activities:** Tutoring in the following courses: College Math, Finite Math, Pre-Calculus, Calculus, Introductory Statistics courses, Biostatistics courses at the graduate level.
5. **Fall 2020 – Spring 2022:** Research Assistant at IU
 - a. **Supervisors:** David B. Allison, PhD, & Stephanie Dickinson, MS
 - b. **Activities:**
 - i. **Data Analyses:** Replication and reproducibility verification of results in the IU- School of Public Health- Bloomington Biostatistics Consulting Center

- (BCC). Application of statistical methods for Inference and Description of data.
- ii. **Research support:** Assisting in IRB protocols, documentation, and communication among institutions to collaborate with for research.
 - iii. **Literature Review:** Obesity & Energetics Offering (OEO) literature review or most recent papers about health Disparities, Equities and Obesity.
 - iv. **Grant writing:** Support in the editing, proofreading (in English and Spanish) in grant writing to IU School of Public Health-Bloomington faculty
6. **Fall 2018 – Summer 2020:** Graduate Appointee at IU:
- a. **Supervisors:** David B. Allison, PhD, Andrew W. Brown, Ph. D & Stephanie Dickinson, MS
 - b. **Activities:**
 - i. **Data Analyses:** Data analyses on de-identified data related to obesity research. Replication and reproducibility verification of results in the IU- School of Public Health- Bloomington Biostatistics Consulting Center (BCC). Application of statistical methods for Inference and Description of data.
 - ii. **Literature Review:** Obesity & Energetics Offering (OEO) literature review or most recent papers about health Disparities, Equities and Obesity.
 - iii. **Grant writing:** Support in the editing, proofreading (in English and Spanish) in grant writing to IU School of Public Health-Bloomington faculty.
7. **Fall 2017 – Summer 2018:** Lecturer at UPRM
- a. **Supervisor:** Marggie González Toledo, Ph.D.
 - b. **Activities**
 - i. **Preparing Lectures:** Teaching Pre-Calculus topics for sections of sizes from 80 to 95 students, proctoring coordinated exams, and scoring exams, preparing exams, quizzes, assessments and supplemental documentation and maintenance of webpage of course
8. **Fall 2016 – Spring 2017:** Tutoring at the Support Center of UPRM.
- a. **Supervisor:** Greichaly Cabrera Cruz, MS
 - b. **Activities:** Tutoring or consulting among undergraduate students about the following courses: Pre-Calculus I & II, Calculus I, II, & III and undergraduate courses of Statistics.
9. **Fall 2016 – Spring 2017 – Teaching Assistant (TA) at UPRM**
- a. **Supervisor:** Nilsa Toro, MS
 - b. **Activities:** Recitation section for Pre-Calculus I & II; section to support lecturer in the class. Material discussion, forum for doubts clarification, and solving problem approach for application of topics discussed on lectures.
10. **Spring 2014 – Spring 2016:** Tutor at UMET
- a. **Supervisor:** Francisco Medina, Ph.D. & Jacqueline Guzmán, MA
 - b. **Activities:** Tutoring in Calculus I & II, and Pre-Calculus I & II to undergraduate students in the School of Science and Technology.
11. **Spring 2014 – Spring 2016:** UTA Assistant at UMET
- a. **Supervisor:** Francisco Medina, Ph.D.

- b. **Activities:** Supporting professor in the Pre-Calculus I & II and Calculus I course. Responsibility in checking attendance, clarifying doubts, discussing, and explaining problems or exercises given as homework.
- 12. **Fall 2013 - Fall 2014:** Assistant Mentor of Biostatistics in the Saturday Academy at UMET
 - a. **Supervisor:** Dayanara Lebrón Aldea, MS & Wanda Rodríguez Lugo, BA
 - b. **Activities:**
 - i. **Lecture Preparation and mentoring:** Preparing lectures and mini seminar to pre-college students in Biostatistics and epidemiology topics including applied statistical methods, basic level of programming in R software and workshops about how to present scientific research.

Ad-Hoc Journal Reviewer

1. 2023 – Addictive Behavior
2. 2022 - Substance Use and Misuse
3. 2020 - Current Drug Safety Journal
4. 2020 – 2021 - Journal of Nutrition (JN)
5. 2020 - eLife
6. 2019 – 2021 - JAMA Network
7. 2019 - Nature
8. 2019 - PLoS Medicine
9. 2019 – 2022 - Journal of American Heart Association (JAHA) MS
10. 2019 - Journal of Immunology and Immunotherapy (JII)
11. 2019 – 2020 - Journal of Integrative Medicine (JIM)
12. 2019 – 2020 - Annal of Internal Medicine
13. 2019 – 2021 - Circulation
14. 2019 – 2021 - American Journal of Clinical Nutrition (AJCN)
15. 2018 – 2021 - Obesity Journal

Social Events

1. November 5, 2022 – Math Alliance – Panelist – How to be more productive in Graduate School
2. November 4-6, 2022 – Math Alliance – Representative and recruiter of the Department of Epidemiology and Biostatistics School of Public Health-Bloomington
3. October 27 – 30, 2022 – SACNAS – Representative and recruiter of the Department of Epidemiology and Biostatistics School of Public Health-Bloomington
4. August 16, 2022 – Graduate Students Panel Orientation Week – Panelist – Talking about how to thrive as a doctoral student in Epidemiology or Biostatistics. This includes about courses, workload, funding opportunities and diversity and inclusion
5. July 26, 2022 – Math Alliance Panel – Panelist – Talking about my experiences as a math major and a member of the Math Alliance to undergraduate in Math-related programs and my experience as a master and doctoral student being an underrepresented minority.
6. March 28, 2022 – Graduate Student Meeting – Speaker – Presenting about how to contribute to communities of Scholars while being a doctoral student.

Poster and Oral Research Presentations

1. Summer 2023, **Determining whether weight status is a mediator for the association between cigarette smoking and all-cause mortality among US adults**, CPDD 2023
2. Spring 2023, **Determining whether weight status is a mediator for the association between cigarette smoking and all-cause mortality among US adults**, SRNT 2023
3. Summer 2022, **Consequences of Unmet Proportionality of Hazard Assumption When Using the Cox PH Model in the Obesity and Longevity Relationship**, ASN Connect 2022.
4. Spring 2022, **Consequences of Unmet Proportionality of Hazard Assumption When Using the Cox PH Model in the Obesity and Longevity Relationship**, 137th Indiana Academy of Science Annual Meeting
5. Spring 2022, **Consequences of Unmet Proportionality of Hazard Assumption When Using the Cox PH Model in the Obesity and Longevity Relationship**, American Statistical Association, Conference Statistical Practice (CSP).
6. Summer 2021, **The association between relative body mass index and mortality in the US**. American Society for Nutrition Annual Meeting, Bloomington, IN.

Summer 2019, **Is the Association of Obesity and Longevity Affected by Social Network Among Latinos?** A symposium for Underrepresented Minority Scholar (URM), Bloomington, IN
7. Fall 2017- Summer 2018 - **“Development and Effectiveness of Applets of Measures of Centre as a Teaching Tool”**
 - a. **Abstract:** Two applets about measure of Centre were developed and implemented as teaching tools in an introductory statistics course at UPRM. An experiment was design where one group was taught using traditional methods and control group used the applets that were developed. An instrument was constructed to quantify the effectiveness of the applets. The findings of this study establish that in both methods the students improved the learning, however the traditional method seemed to be more effective. Factors such as technological anxiety and previous mathematical experience may have influenced these results.
8. Fall 2015, **"Analysis of Metapopulation with an Allee Effect"**, Advancing Chicanos/Hispanics and Native Americans in Science (SACNAS) Conference at Washington D.C.
9. Fall 2015, **"Analysis of Metapopulation with an Allee Effect"**, Ana G. Mendez University System (AGMUS) National Symposium 2015, San Juan, P.R
10. Summer 2015, **"Analysis of Metapopulation with an Allee Effect"**, Mathematical Biological Institute (MBI) Conference, The Ohio State University, Columbus, OH.
 - a. **Abstract:** Developed a logistic model to predict metapopulation considering the Allee Effect. Different analysis using stochastic simulations and bifurcation theory were used in order to find the accuracy of the model plausibly.

11. Fall 2014, “**Accuracy in Image Processing Methods to Calculate the Rotation Angle of an Output Image**”, AGMUS National Symposium Fall 2014, San Juan, P.R
12. Fall 2013, “**Evolution of Mitochondrial tRNA in Spinny Ray-Finned Fishes**”, AGMUS National Symposium Fall 2013, San Juan, PR
13. Summer 2013, **Evolution of Mitochondrial tRNA in Spinny Ray-Finned Fishes** Summer Expo, University of Alabama at Birmingham, Birmingham, AL
 - a. **Abstract:** Using Statistical Geometry methods in R software it was find the evolutionary distance, using their tRNA, between the species of the Class Actinopterygii. As a result, the species has a common ancestor 100 million of year before.
14. Spring 2013, “**Comparative Analysis of Pairwise Alignment Method**”, MGE @MGA WAESO Conference in Arizona State University, Tempe, AZ.
15. Fall 2012, “**Comparative Analysis of Pairwise Alignment Method**”, AGMUS National Symposium 2012.
 - a. **Abstract:** Over 20 tool alignments were analyzed and compared considering their DNA alignment accuracy, starting time and running time. As a result, ACANA was find out to be the best tool alignment method

Service Activities:

1. **Spring 2023:** Representative of the School of Public Health-Bloomington of the Graduate School Strategic Planning Committee – Indiana University, School of Graduate School
 - **Supervisor:** David Deleke, Ph.D.
2. **Spring 2023:** Member of the Committee Fee Review Membership – Indiana University Student Government and Graduate and Professional Student Government
 - **Supervisor:** Kyle Scott Seibert and Chelsea Brinda
3. **Fall 2022 – Present:** Program Chair-Elected at the American Statistical Association – Section of Statistical Programming and Analysts
 - **Supervisor:** Vipin Arora, Ph.D.
4. **Fall 2022 – Present:** Secretary of American Society for Nutrition (ASN) – Aging and Chronic Disease (ACD)
 - **Supervisor:** Heather Wiese, Ph.D.
 - **Activities:** Assisting in collaborating in ideas, and decision-making process, responsible of managing social media and communications with all members of the section and doing minutes for meetings.
5. **Fall 2019 – Summer 2022:** Graduate Student Representative of American Society for Nutrition (ASN) – Aging and Chronic Disease (ACD):
 - **Supervisor:** Kathryn Starr, PhD
 - **Activities:** Assisting and collaborating in ideas, and decision-making process, quarterly newsletter, and connection between students and committee.
6. **Fall 2018 – Summer 2020:** Representative of the Epidemiology and Biostatistics (EBio) Department in the Student Government at the School of Public Health IU Bloomington
 - **Supervisor:** Melissa Murray, Ph.D., Paola P. Matthey-Mora, MPH

- **Activities:** Responsible of communication between students of the EBio Department with the EBio administration and communicate concerns of the EBio student body to the Student Government members.
- 7. **Fall 2018 – Summer 2020:** Student Government's Liaison at the School of Public Health IU Bloomington
 - **Supervisor:** Melissa Murray, Ph.D., Paola P. Matthey-Mora, MPH
 - **Activities:** Responsible in coordination of events as seminars, workshops, etc. being the link among student body and the Dean's Office.
- 8. **Summer 2017,** Teacher Assistant (TA) at the Sampling Advanced Mathematics for Minorities Students (SAMMS) Program at The Ohio State University.
 - **Supervisor:** Luis Cáceres, Ph.D.
 - **Activities:** Tutoring in Statistics and Combinatorics mini course to participants.
- 9. **Fall 2016 – Spring 2017:** Accountant of AIESEC, Chapter Mayaguez
 - **Supervisor:** Andrés Dávila, BA
 - **Activities:** Data organization, assistance on payments, and accounts management.
- 10. **Summer 2016,** Participant at the Sampling Advanced Mathematics for Minorities Students (SAMMS) Program at The Ohio State University.
 - **Supervisor:** Does not applied in this case
 - **Activities:** Intense four weeks in Mini Courses in Statistics and Combinatorics, Computational Mathematics, and introduction to real analysis.

Awards and Achievements

1. **Spring 2022:** Selected as the top 10 graduate students in the USA by Diverse: Issues in Higher Education.
2. **Spring 2019 -** Responsible Conduct of Research (RCR) Social Behavior Training for Students Certification
3. **Spring 2018 –** Responsible Conduct of Research (RCR) Social Behavior Training for Students Certification
4. **Summer 2017:** SAMMS Program TA Certification
5. **Summer 2016:** SAMMS program Participation Certification
6. **Spring 2016:** Federico Mathew Award
7. **Spring 2016:** Bachelor's degree with Magna Cum Laude Honors
8. **Fall 2015:** Responsible Conduct of Research (RCR) Biosafety Training for Students Certification
9. **Fall 2015:** Travel Scholarship to SACNAS Conference
10. **Fall 2015:** Honor student at the Ana G. Mendez University System
11. **Spring 2013:** Excellent List Student of AGMUS Institute of Mathematics

12. **Spring 2013:** Honorific Mention in the MGA@MGE Waeso Conference
13. **Spring 2013:** Travel Award to the MGA@MGE Waeso Conference
14. **Winter 2012:** Travel Award to the Joint Mathematical Meeting (JMM) 2013
15. **Summer 2012:** Responsible Conduct of Research (RCR) Biosafety Training for Students Certification

Membership in Professional Societies

1. 2023 - College on Problems of Drug Dependence (CPDD)
2. 2021 - The American Statistical Association (ASA)
3. 2019 - The American Society for Nutrition (ASN)
4. 2018 – 2020 The Obesity Society
5. 2012-2015,
2019 – 2021 and
2022 – SACNAS (Advancing Chicanos/Hispanics & Native Americans in Science)
6. 2019 - 2020 American Association for the Advancement of Science (AAAS)
7. 2015 – Present Math Alliance
8. 2016 – 2017 AIESEC Puerto Rico, Chapter Mayaguez
9. 2012-2013 The American Mathematical Society AGMUS chapter member

Skills

1. Languages
 - **Spanish** – Native or Bilingual Proficiency level
 - **English** - Native or Bilingual Proficiency level
2. Marketing and Publicity – Intermediate Level
3. Coding
 - **R Software** – Proficient level
 - **SAS** - Intermediate level
 - **Python** – Intermediate level
 - **MATLAB** – Intermediate level
 - **STATA** – Intermediate level