# Curriculum Vitae Félix E. Rivera-Mariani, PhD

**Date:** 06/06/20232

### I. Personal Info:

A. Office Phone:

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C. Address: 1120 N.W. 14th St.

Don Soffer Clinical Research Building, Office 1066

Leonard M. Miller School of Medicine, University of Miami

Miami, FL 33136

D. **Department**: Department of Public Health Sciences

### I. Education

### A. Institutional

2004 – 2010 **Doctor of Philosophy**, Microbiology and Medical Zoology

<u>Dissertation</u>: Sensitization to Basidiomycetes and Airborne Fungal Particulate by Asthmatic and Allergic Rhinitis Subjects

Department of Microbiology, School of Medicine, University of Puerto Rico – Medical Sciences Campus, San Juan, PR

1996 – 2001 Bachelor of Science, Biology

(Attended via Baseball Scholarship)

Southeastern Louisiana University, Hammond, LA

### B. Non-Institutional

- 2020 2021 **Scholar**, Leading Emerging and Diverse Scientists to Success (LEADS)
  Institute for Clinical Research Education, University of Pittsburgh, PA
- 2019 2020 **Scholar**, Advanced Respiratory Research for Equity (AIRE) of the Programs to Increase Diversity Among Individuals Engaged-Related Research (PRIDE), University of Arizona, Tucson, AZ
- 2013 2014 **Fellowship**, Science Teaching American Society of Microbiology, Washington, DC
- 2010 2013 **Postdoctoral Fellowship**, Environmental Health Sciences
  Department of Environmental Health and Engineering, School of Public Health,
  Johns Hopkins University, Baltimore, MD

## C. Additional Training

2019 **Health Disparities: A Translational Research Approach** (Online) University of Puerto Rico – Medical Sciences Campus

# 2016 – 2017 Mastering Software Development in R (5-courses series)

Johns Hopkins University (on <a href="https://www.coursera.org">www.coursera.org</a>)

# **Bioinformatics Specialization** (7-courses series)

University of California – San Diego (on <a href="https://www.coursera.org">www.coursera.org</a>)

## **Genomics Data Science Specialization** (8-courses series)

Johns Hopkins University (on www.coursera.org)

## **Executive Data Science Specialization** (5-courses series)

Johns Hopkins University (on www.coursera.org)

## **Systems Biology and Biotechnology Specialization** (6-courses series)

Icahn School of Medicine at Mount Sinai (on www.coursera.org)

## **Data Science Specialization** (10-courses series)

Johns Hopkins University (on <a href="https://www.coursera.org">www.coursera.org</a>)

2015 Statistical Reasoning for Public Health I: Estimation, Inference, Interpretation

Statistical Reasoning for Public Health II: Regression Models

Johns Hopkins University (on www.coursera.org)

## **II. Work Experience**

### A. Academic

2022 – Present	<b>Assistant Scientist</b> , Division of Environmental and Public Health, Department of Public Health Sciences, University of Miami, Miller School of Medicine, Miami, FL
2018 – 2022	<b>Assistant Professor</b> , College of Biomedical Sciences, Larkin University, Miami, FL
2017 (Aug – Dec)	<b>Adjunct Professor</b> , College of Biomedical Sciences, Larkin University, Miami, FL
2015 (Jan – May)	Invited Professor, Department of Microbiology, School of Medicine, University of Puerto Rico – Medical Sciences Campus, San Juan, PR
2014	<b>Adjunct Professor,</b> Keiser University, Pembroke Pines Campus, Pembroke Pines, FL
2014 – 2017	<b>Adjunct Professor</b> , College of Natural Sciences, Health and Wellness, Miami Dade College, Miami, FL

### B. Non-Academic

2020 – Present Founder, President, and Livestream-Digital Content Producer

Vistazo A La Ciencia LLC, Fort Lauderdale, FL website: <a href="https://www.vistazoalaciencia.com">https://www.vistazoalaciencia.com</a>

2018 – Present Founder, Director, Scientist

Respiratory and Immunology Project and Laboratory Research Team

Fort Lauderdale, FL

website: <a href="https://www.riplrt.com">https://www.riplrt.com</a>

2013 – Present Consultant in Immunology, Environmental health, Exposure Science,

Computational Biology, and Data Science

Felix E. Rivera-Mariani, PhD LLC, Fort Lauderdale, FL

website: <a href="https://www.friveram.com">https://www.friveram.com</a>

2012 – 2015 **Developmental Editor**, American Journal Experts (subsidiary of

Research Square LLC), Durham, NC

2001 – 2004 Microbiology Analyst, Environmental Quality Laboratories, Bayamon,

PR

## III. Publications, Abstracts, and Invited Talks

### A. Peer-Reviewed

- 1. Hernández-González X, <u>Rivera-Mariani FE</u>, Méndez L, and Bolaños-Rosero B. Increase in the Susceptibility to COVID-19 during the Fungal Spore Season among Residents of San Juan and Caguas, Puerto Rico. *Puerto Rico Health Sciences Journal*. 2023. 42(Suppl): 19.
- 2. Levetin E, Pityn PJ, Ramon GD, Pityn E, Anderson J, Bielory L, Dalan D, Codina R, <u>Rivera-Mariani FE</u>, Bolaños-Rosero B. Aeroallergen Monitoring by the NAB: A Review of the Past and a Look into the Future. *J Allergy Clin Immunol In Practice*. 2022. 11(5): 1394-1400.
- 3. Vélez-Torres L, Bolaños-Rosero B, Godoy-Vitorino F, <u>Rivera-Mariani FE</u>, Maestre J, Kinney KA, Cavallin H. Culture-Based Characterization of Fungal Communities in Homes in San Juan, Puerto Rico following Hurricane Maria. *Peer J.* 2022. 10:e12370.
- 4. <u>Rivera-Mariani FE</u>, Almaguer M, Jesus Aira M, Bolaños-Rosero B. Comparison of atmospheric fungal spore concentrations between two main cities in the Caribbean basin. *Puerto Rico Health Sciences Journal*. 2020. 39(3): 235-242.
- 5. Suárez-Martínez EB, <u>Rivera-Mariani FE</u>, Ocasio M, Arroyo G. Microbiome and Respiratory Diseases: A Study Using a Novel Non-invasive Saliva Sample Collection Method. The FASEB Journal. 2020. 34 (S1): 1-1.
- 6. Nawaz J, Pullen F, <u>Rivera-Mariani FE</u>, Rizvi SAA, Sánchez-González MA, Grogan T. Spring is here, now what? Know the Differences between a Cold, Flu, Coronavirus, and Allergy. *Emerging Infect Dis Diag J.* 2020. EIDDJ-10010.
- 7. <u>Rivera-Mariani FE</u>, Srour H, Romenko F, Bellinger S, and Stateman A. Profile of dendritic cells surface biomarkers in nasal and oral mucosa of human subjects reactive to grass pollen and house dust mites. *J Immunol.* 2019. 202 (1 Suppl) 55.18.
- 8. Srour HH, Baguley JK, Bellinger SV, Stateman AJ, <u>Rivera-Mariani FE</u>. Comparing the magnitude of meteorological variables and air pollutants as contributing factors of atopic dermatitis symptoms. *J Allergy Clin Immunol.* 2019. 143(S2). AB235.

- Stateman AJ, Srour HH, Baguley JK, Bellinger SV, <u>Rivera-Mariani FE</u>. Comparison between PM2.5 levels on east coast and state of California in relationship to asthma. *J Allergy Clin Immunol.* 2019. 143(S2). AB24.
- Bellinger SV, Stateman AJ, Srour HH, Baguley JK, <u>Rivera-Mariani FE</u>. Evaluating differences in prevalence of food allergies between two geographic regions: Australia and US. *J Allergy Clin Immunol*. 2019. 143(S2). AB268.
- 11. Baguley JK, Bellinger SV, Srour HH, Stateman AJ, <u>Rivera-Mariani FE</u>. Gender difference in dendritic cell population in nasal and oral cavity between allergen and non-allergic subjects. *J Allergy Clin Immunol.* 2019. 143(S2). AB228.
- 12. <u>Rivera-Mariani FE</u>, Srour HH, Baguley JK, Bellinger SV, Stateman AJ, Bolaños-Rosero B. Relationship of serological reactivity to cytoplasmic extracts from spores of *Ganoderma applanatum* and commercial extracts of indoor, mitosporic fungi, and farm animal allergens among Puerto Rican subjects. *J Allergy Clin Immunol.* 2019. 143(S2). AB301
- 13. Gaspar PM, Schreb CA, <u>Rivera-Mariani FE</u>. Hydration Status of Assisted Living Memory Care Residents. *J Gerontogical Nursing*. 2019. 45(4): 21-29.
- 14. Srour H, Fomenko R, Baguley J, Bellinger S, Jordan A, Sutton J, Santana M, Marull A, Abdalhuk M, <u>Rivera-Mariani FE</u>. Pilot study of publicly available data to evaluate the relationship between forest fires and emergency department visits due to asthma in the state of California [version 2; peer review: 1 approved]. *F1000Research* 2019, 7:1232
- 15. Abdalhuk M, Jordan A, Wagimin R, Stamitoles C, Bellinger S, Baguley J, Srour H, Fomenko R, Sutton J, Santana M, Marull A, <u>Rivera-Mariani FE</u>. Evaluating the Association of Race, Ethnicity, and Food Allergens in the Development of Childhood Asthma: Re-Analysis of Publicly-Available Retrospective Cross-Sectional Cohort Data. *F1000Research*. 2018. 7:1209.
- 16. <u>Rivera-Mariani FE</u> and Bolaños-Rosero B. Principal Component Analysis to Evaluate Relationships in Reactivity to Commercial Extracts and Uncharacterized Fungi among Asthmatic and Allergic Rhinitis Subjects. *J Immunol.* 2018 (1 Supp. 44.2).
- 17. González de Leon J, Gonález Méndez R., Cadilla Vázquez CL, <u>Rivera-Mariani FE</u>, Bolaños-Rosero, B. Serological Reactivity and Identification of Immunoglobulin E Binding Proteins of Xerophilic Fungus *Aspergillus penicilloides* Crude Mycelial Mat Extract in Puerto Rican Atopic Subjects. *Int Arch Allergy Immunol*. 2018. 175: 147-159.
- Vila-Herester F, <u>Rivera-Mariani FE</u>, Bolanos-Rosero B. Serological reactivity and IgE-binding polypeptides to *Ganoderma applanatum* Cruse Spore Cytoplasmic Extract in Puerto Rico Subjects. *Int Arch Allergy Immunol.* 2017; 172:139–149.
- 19. Bose S, <u>Rivera-Mariani FE</u>, Chen R, Williams D, Aloe, Belli D, Breysse, PN, Diette G, Hansel N. Domestic exposure to endotoxin and respiratory morbidity in former smokers with COPD. *Indoor Air*. 2016. 26(5): 734-42.
- 20. Vesper S, Choi H, Perzanowski P, Acosta LM, Divjan A, Bolaños-Rosero B, <u>Rivera-Mariani FE</u>, Chew GL. Comparison of mold populations in settled dust and dust mite allergens in mattress dust samples in the Puerto Rico Health Regions. *Int J Environ Health Research*. 2016. 26(2): 198-207.

- 21. Hasiwa N, Daneshian M, Bruegger P, Fennrich S, Fleck S, Hochadel A, Hoffman S, <u>Rivera-Mariani FE</u>, Rockel C, Schindler S, Spreitzer I, Stoppelkamp S, Vysyaraju K, Hartung T. Addendum to Evidence for the Detection of non-Endotoxin Pyrogens by the Whole Blood Monocyte Activation Test. *Altex*. 2014. 31 (4): 499.
- 22. Hasiwa N, Daneshian M, Bruegger P, Fennrich S, Fleck S, Hochadel A, Hoffman S, <u>Rivera-Mariani FE</u>, Rockel C, Schindler S, Spreitzer I, Stoppelkamp S, Vysyaraju K, Hartung T. Addendum to Evidence for the Detection of non-Endotoxin Pyrogens by the Whole Blood Monocyte Activation Test. *Altex*. 2014. 31 (2): 226.
- 23. Hasiwa N, Daneshian M, Bruegger P, Fennrich S, Fleck S, Hochadel A, Hoffman S, <u>Rivera-Mariani FE</u>, Rockel C, Schindler S, Spreitzer I, Stoppelkamp S, Vysyaraju K, Hartung T. Erratum to: Evidence for the Detection of non-Endotoxin pyrogens by the Whole Blood Monocyte activation test. *Altex.* 2013. 30 (3): 352.
- 24. <u>Rivera-Mariani FE</u>, Vysyaraju K, Negherbon J, Levetin E, Horner WE, Hartung T, Breysse PN. Comparison of the interleukin-1β-inducing potency of allergenic spores from higher fungi (Basidiomycetes) in a cryopreserved human whole blood system. *International Archives of Allergy and Immunology*. 2013. 163 (2): 154-62.
- 25. <u>Rivera-Mariani FE</u>. Cryopreserved human whole blood: a human-based *in-vitro* immunotoxicological system expanded into environmental health and medical mycology studies. **Invited Special issue** of *ATLA*. 2013. 41(6): 483-90.
- 26. Hasiwa N, Daneshian M, Bruegger P, Fennrich S, Fleck S, Hochadel A, Hoffman S, <u>Rivera-Mariani FE</u>, Rockel C, Schindler S, Spreitzer I, Stoppelkamp S, Vysyaraju K, Hartung T. Evidence for the detection of non-endotoxin pyrogens (NEPS) by the whole blood monocyte activation test. *ALTEX*, 2013. 30(2): 169-208.
- 27. <u>Rivera-Mariani FE</u>, Mihalic JN, Rule AM, Breysse PN. Immunodetection of airborne (1-3)-β-Dglucan-carrying particles with the Halogen immunoassay in occupational setting. *J Immunol Methods*. 2013. 388: 86-89.
- 28. **Rivera-Mariani FE**. Rethinking our Postdoctoral Training. *Postdoctoral Journal*. 2012; 2 (2): 27-29.
- 29. <u>Rivera-Mariani FE</u>, Matsui E, Breysse PN. Performance of the Halogen Immunoassay to Assess Airborne Mouse Allergen-Containing Particles in a Laboratory Animal Facility. *Journal of Exposure Science and Environmental Epidemiology*. 2012. 24 (1): 3-8.
- 30. <u>Rivera-Mariani FE</u>, Vysyaraju K, Levetin E, Hartung T, Breysse PN. Determination of the Proinflammatory Potential of Spores from Different Basidiomycetes Species with a Human Whole Blood Assay. *J Immunol.* 2012; 188: AB55.13.
- 31. <u>Rivera-Mariani FE</u> and Bolaños-Rosero B. Allergenicity of airborne basidiospores and ascospores: need for further studies. *Aerobiologia* 2012: 28(2): 83-97.
- 32. <u>Rivera-Mariani FE</u>, Hartung T, Breysse PN. Evaluation of the Pro-inflammatory Activity of Basidiospores and Spore-bearing Tissue from the Mushroom *Chlorophyllum molybdites* using Human Whole Blood. *J Allergy Clin Immunol*. 2012; 129(2): AB18.

- 33. <u>Rivera-Mariani FE</u>, Nazario-Jiménez S, López-Malpica F, and Bolaños-Rosero B. Skin Test Reactivity of Allergic Subjects to Basidiomycetes' Crude Extracts in a Tropical Environment. *Medical Mycology*. 2011. 49(8): 887-91.
- 34. <u>Rivera-Mariani FE</u>, Nazario-Jiménez S, López-Malpica F, and Bolaños-Rosero B. Sensitization to Airborne Ascospores, Basidiospores, and Fungal Fragments by Allergic Rhinitis and Asthmatic Subjects in San Juan, Puerto Rico. *International Archives of Allergy and Immunology*. 2011; 155(4): 322-34.
- 35. <u>Rivera-Mariani FE</u>, Nazario-Jiménez S, López-Malpica F, and Bolaños-Rosero B. Prevalence of IgE Reactivities by Rhinitis and Asthmatic Patients to Airborne Particulate. *J Allergy Clin Immunol*. 2010; 125(2): AB80.
- 36. Quintero E, <u>Rivera-Mariani FE</u>, and Bolaños-Rosero B. Analysis of Environmental Factors and Their Effects on Fungal Spores and Pollen in the Atmosphere of a Tropical Urban Area (San Juan, Puerto Rico). *Aerobiologia*. 2010; 26(2): 113-124.

### B. Abstracts

- Rivera-Mariani FE, Hasan N, Zhao X, Ilarraza G, Noriera S, Balda A, Gallimore-Wilson G, Cruz A, Reyes A, Noriega R, Gomez EV, Samir Desai M, Steinberg T, Lee IA, Awojobi T, Pandey S, Reimon R, Lasday M, Rose B, Beaver C, Carrera O, Suarez del Rosario N, Garibaldi J, Gree AJ, Shaefer-Solle N, Cabán-Martínez A. Risk factors for COVID-19 vaccine side effects among a cohort of Florida essential workers. <u>Poster Presentation (Abstract accepted)</u>. 2023 APHA annual meeting. November, 2023. Atlanta, GA
- 2. Hernández-González X, <u>Rivera-Mariani FE</u>, and Bolaños-Rosero B,. Outdoor Fungal Spores and the Susceptibility to COVID-19 in Two Municipalities of Puerto Rico. <u>Poster Presentation</u>. American Society for Microbiology, Microbe 2022, Washington, DC.
- Vélez-Torrez LN, <u>Rivera-Mariani FE</u>, Bolaños-Rosero B. Pro-Inflammatory potential of spores of aspergillus species recovered from water-damaged and flooded homes after Hurricane Maria (2017). <u>Poster Presentation</u>. American Society for Microbiology, Microbe 2022, Washington, DC.
- 4. <u>Rivera-Mariani FE</u>, Srour HH, Fomenko R, Maestre JP, Kinney K, Godoy-Vitorini F, Bolaños-Rosero B, Cavallin H. Pro-inflammatory potential of indoor dust collected from households in San Juan, PR in the aftermath of Hurricane Maria. <u>Poster Presentation</u>. Society of Toxicology Annual Meeting & ToxExpo 2019. Baltimore, MD.
- 5. <u>Rivera-Mariani FE</u>, Levetin E, Hartung T, Breysse PN. Role of spores' surface area and endotoxin contamination in the proinflammatory potential of spores from allergenic basidiomycete fungi in a cryopreserved human whole blood system. <u>Poster Presentation</u>. *Gordon Research Seminar/Conference Immunology to Fungal Infections*. January 2013. Galveston, TX.
- 6. <u>Rivera-Mariani FE</u>, Vysyaraju K, Negherbon J, Hartung T, Breysse PN, Hansel N. Assessment of the proinflammatory potential of indoor air particulate matter based on the cytokine release in a cryopreserved human whole blood system. <u>Poster Presentation</u>. *International Society for Exposure Science* Annual Meeting, October, 2012. Seattle, WA.

- 7. <u>Rivera-Mariani FE</u>, Mihalic JN, Rule AM, Breysse PN. Immunodetection of (1-3)-β-D-glucan with the Halogen Immunoassay. Poster Presentation. *American Industrial Hygiene Association* Annual Meeting, June, 2012. Indianapolis, IN. <u>Best Poster</u> in the Sampling and Laboratory Analysis Session.
- 8. <u>Rivera-Mariani FE</u>, Hartung T, Breysse PN. Evaluation of the cooperative proinflammatory effect between endotoxin and (1-3)-β-D-glucan with the *in-vitro* Pyrogen Test. <u>Poster Presentation</u>. *Society of Toxicology* Annual Meeting March, 2012, San Francisco, CA.
- 9. <u>Rivera-Mariani FE</u>, Matsui E, Breysse PN. Immunodetection of airborne particulate carrying mouse allergen. <u>Poster Presentation</u>. *International Society for Exposure Science* Annual Meeting, October, 2011. Baltimore, MD.
- 10. <u>Rivera-Mariani FE</u>, Nazario-Jiménez S, López-Malpica F, and Bolaños-Rosero B. Airborne ascospores and basidiospores as potential allergens for allergic respiratory diseases. <u>Oral Presentation</u>. International Association for Aerobiology 9<sup>th</sup> *International Congress on Aerobiology*, August, 2010. Buenos Aires, Argentina.
- 11. <u>Rivera-Mariani FE</u>, Nazario-Jiménez S, and Bolaños-Rosero B. Prevalence of IgE Reactivities to Airborne Particulate by Asthmatic Subjects. <u>Oral Presentation</u>. *Pan-American Aerobiology Association* Annual Meeting, July, 2009. Kansas City, MO.
- 12. <u>Rivera-Mariani FE</u>, Quintero E, and Bolaños-Rosero B. Fungal Spore in the Atmosphere of San Juan and Caguas: A Comparative Study. <u>Oral presentation</u>. *Pan-American Aerobiology Association* Annual meeting, June, 2007. Penn State University, Stage College, PA.
- 13. Quintero E, <u>Rivera-Mariani FE</u>, and Bolaños-Rosero B. Fungal Spore and Pollen in the Atmosphere of San Juan. <u>Poster presentation</u>. *Pan-American Aerobiology Association* Annual Meeting, June 2007. Penn State University, Stage College, PA.
- C. Data Science Reports, Applications, Projects
  - 1. Applying Data Science Approaches in Biological Sciences Classrooms. Project at Researchgate.com <a href="https://www.researchgate.net/project/Applying-Data-Science-Approaches-in-Biological-Sciences-Classrooms">https://www.researchgate.net/project/Applying-Data-Science-Approaches-in-Biological-Sciences-Classrooms</a>
  - RNA-seq Data Analysis Workflow to Evaluate Differential Gene Expression between Fetus and Adult Brains from Publicly-Available Data as a Genomic Data Science Demonstration in an Upper Microbiology Course. Technical Report at Researchgate.com <a href="http://dx.doi.org/10.13140/RG.2.2.14868.09604">http://dx.doi.org/10.13140/RG.2.2.14868.09604</a>
  - Peer-Evaluations as an Intervention Tool to Identify Students' Misconceptions and Interpretation Errors in the Streak-Plate Method in an Introductory Microbiology Lab Course. 2016. Technical-Report at Researchgate.com. <a href="http://dx.doi.org/10.13140/RG.2.1.2693.5921">http://dx.doi.org/10.13140/RG.2.1.2693.5921</a>
  - 4. Shiny Web Application for Word Predictions. https://rpubs.com/friveramariani/jhdscapstone

### D. Conferences and Invited Talks

1. **Summer Research Program, Fundación Garcia Rinaldi**, San Juan, PR. <u>Guest Lecture</u>: What to expect in a mentor-mentee relationship. *May 2023*.

- 2. Department of Public Health Sciences, Miller School of Medicine, University of Miami. Miami, FL. <u>Dr. Cabán-Martínez's Lab presentation series:</u> Biological Data Approaches in Environmental Health Studies. *May 2023*.
- 3. Department of Microbiology, School of Medicine, University of Puerto Rico Medical Sciences Campus. San Juan, PR. <u>Guest Lecture:</u> Microbiology at a glance: from inside and moving beyond the lab to impact communities. *April 2023*.
- 4. Ronneberg Lecture Series, Dennison University, Granville, OH. <u>Guest Lecture</u>: Refining our brand through the sciences: from the bench to "Making the Data Confess." *March, 2023*.
- 5. **64<sup>th</sup> Annual Conference of the Microbiology Society of Puerto Rico**, San Juan, PR. <u>Guest Speaker</u>: From Hurricane Maria to social outreach: when our microbiology goes beyond the bench. **June, 2022**.
- 6. Community Health Coalition of Puerto Rico (COSACOPR), San Juan, PR. <u>Guest Lecture</u>: When our immune system is ready for battle. *August*, *2020*.
- 7. **2019 Annual Biomedical Research Conference for Minority Students**, Anaheim, CA. Workshop session: Deconvoluting disease biomarkers with computational tools. Workshop <u>Title</u>: Computational and system biology to identify biomarkers in environmental health studies: from indoor pollution to the aftermath of Hurricane Maria. **November, 2019**.
- 8. School of Civil, Architectural, and Environmental Engineering, University of Texas at Austin, Austin, TX. Exposure science through human blood: understanding pro-inflammatory exposures through human blood. *October*, *2019*.
- 9. **2019** Annual Conference of the American Academy of Allergy, Asthma, and Immunology. San Francisco, CA. <u>Oral Presenter</u>: Relationship of serological reactivity to cytoplasmic extracts from spores of *Ganoderma applanatum* and commercial extracts of indoor, mitosporic fungi, and farm animal allergens among Puerto Rican subjects. *February*, **2019**.
- 10. **University of Puerto Rico Ponce Campus.** Ponce, PR. <u>Guest Lecture</u>. "The Interphase of biomedical sciences and data analytics: which one goes first?". Sponsored by the University of Puerto Rico Ponce Campus Research Initiative for Scientific Enhancement. *January*, *2019*.
- 11. AAAS Florida Biomedical Career Symposium. Jupiter, FL (Scripps Institute). <u>Panelist.</u> Science Education Careers. *January, 2018.*
- 12. University of Puerto Rico Carolina Campus. Online Workshop: Image analysis in biological sciences (from western blot to data-driven decisions). *June 2017.*
- 13. Math and Sciences Specialized High School Thomas Armstrong Toro. Ponce, PR. 2016 and 2017. Ponce, PR. Workshop. "Doing Science: From Start to Finish". *January 2016 and 2017.*
- 14.9<sup>th</sup> Annual NIH Career Symposium, Bethesda, Maryland. <u>Panelist.</u> Teaching-intensive careers. *May 2016.*

- 15. **Department of Microbiology, School of Medicine, University of Puerto Rico Medical Sciences Campus.** San Juan, PR. <u>Guest Lecture</u>. Immunological intervention to evaluate the human health effects of indoor and outdoor biological and non-biological airborne contaminants. *February 2015*.
- 16. Department of Biology, University of Puerto Rico Bayamon Campus. Bayamon, PR. Guest Lecture. Immunological intervention to evaluate the human health effects of indoor and outdoor biological and non-biological airborne contaminants. *March 2015*.
- 17. Department of Microbiology, College of Medical Sciences, Nova Southeastern University, Davie, FL. Guest Lecture. A Review of fungi relevant to dentistry. *August 2013*.
- 18. National Postdoctoral Association 11<sup>th</sup> Annual Meeting. Charleston, SC. <u>Guest Lecture</u>. Postdoc diversity: solution for faculty diversity. Co-presenter with Dr. Jennifer Cohen and Dr. Cara Altimus. Charleston, SC. *March 2013.*
- 19. Department of Biology of the College of Sciences and Technology, Southeastern Louisiana University. Hammond, LA. <u>Guest Lecture</u>. Allergenicity and proinflammatory potential of uncharacterized airborne fungi. *October 2012*.

### IV. Professional

A. Ongoing Funded Research

# <u>Title</u>: Research on the Epidemiology of SARS-CoV-2 among Essential Response Personnel

PI: Alberto Cabán-Martínez

Role: Lead-Scientist, Co-Investigator

B. Completed Funded Research

# <u>Title</u>: Linking Microbial, SVOC and Pro-Inflammatory Exposures in Homes to Childhood Asthma Severity: A Community Filter Forensics Approach

Project Number (and PI): HUD126513356 (PI Kerry Kinney)

Amount Awarded: \$700,000

Role: Collaborator, Sub-Award Principal Investigator (\$76,931)

# <u>Title of Pilot Study</u>: Immune and Epigenetic Signatures Related to Post-Hurricane Maria Indoor Contamination in Puerto Rico

<u>Project Number (and PI):</u> R25HL126140 (Multi-PI Joe Garcia, Francisco Moreno, Sairam Parthasarathy

Amount Awarded: \$14688 (Pilot Study under a training within project R25HL126140)

Role: PI of Pilot Study as part of the Advanced Respiratory Research for Equity (AIRE) training program

# <u>Title</u>: Taking a Breath after the Disaster: Homes, Molds and Health in Puerto Rico after Hurricane

Project Number (and PI): R21ES029762 (PI Humberto Cavallin)

Amount Awarded: \$408, 316

Role: Collaborator, Sub-Award Principal Investigator (\$15,500)

# Title: Genetic Susceptibility to Asthma and Indoor Air Pollution in Peru

Project Number (and PI): 3R01ES018845-04S1 (PI, Nadia Hansel)

Amount Awarded: \$410, 571

Role: Postdoctoral Collaborator (under Patrick Breysse, PhD, and Thomas Hartung, PhD)

### C. Honors and Travel Awards

- Minority Scientist Travel Award, 2019, American Association of Immunologists, Immunology 2019 Annual, San Diego, CA
- Early Career Faculty Travel Award, 2018, American Association of Immunologists, Immunology 2018 Annual, Austin, TX
- Carl Storm Underrepresented Minority Fellowship Travel Award, 2013, Immunology of Fungal Infections, Gordon Conference, Galveston, TX
- Lush Prize Young Researcher Award (\$20,000), 2012, Ethical Consumer Association
- New Researcher Travel Award, 2012, International Society for Exposure Science, 22<sup>nd</sup> Annual Conference, Seattle, WA
- **Domestic Fellows-in-Training Travel Award,** 2012, American Academy of Allergy, Asthma and Immunology, 2012 Annual Meeting, Orlando, FL
- David Leslie Swift Fund in Environmental Health Engineering (\$2,000), 2011, Johns Hopkins University Bloomberg School of Public Health
- Minority Access to Research Careers Travel Award, 2011, Federation of American Societies for Experimental Biology, Virginia Beach, VA.
- Young Aerobiologist Award (\$1,000), 2010, International Association for Aerobiology
- Fellows-in-Training Travel Award, 2010, American Academy of Allergy, Asthma and Immunology, 2010 Annual Meeting 2010, New Orleans, LA
- Latin American Travel Award, 2010, International Association for Aerobiology, 2010 Annual Meeting, Buenos Aires, Argentina
- Latin American Travel Award, 2010, Pan American Aerobiology Association, 2010 Annual Meeting, Kansas City, MO
- Lanzoni's Student Award, 2007, Pan American Aerobiology Association, 2007 Annual Conference, State College, PA

### D. Editorial and Peer-Review Responsibilities

- Aerobiologia
  - o Ad Hoc Manuscript Reviewer, 2011 Present
- American Association for the Advancement of Science

- Session Proposal Reviewer, 2018 Present
- American Academy of Allergy, Asthma, and Immunology
  - o Abstract Reviewer, 2020 Present
- Annals of Agriculture and Environmental Medicine
  - o Peer-Reviewer, 2017
- Annual Biomedical Research Conferenced for Minoritized Students
  - Abstract Reviewer, 2017 Present
  - Judge of Posters and Oral Presentations, 2017 Present
- Conrad Spirit Innovation Challenge
  - o Proposal Reviewer, 2015 2021
- Journal of Postdoctoral Research
  - Peer-Reviewer and Editor, 2013
- Johns Hopkins Postdoctoral Association
  - Quarterly Newsletter Co-Editor, 2012 2013
- SACNAS National Conferences
  - o Abstract Reviewer, 2011 2021
- Sigma Xi Student Research Showcase
  - Abstract Reviewer, 2013 Present
- Society of Toxicology
  - o Ad Hoc Reviewer, Occupational and Public Health Section, 2011 2012

## E. Panel Study Sections

- Developing Hispanic-Serving Institution program, Department of Education, 2022.
- Mentored-to-Independence Study Section, National Blood, Heart, and Lung Institute, 2021 –
   Present

## F. Professional and Honorary Organizations

- American Academy of Allergy, Asthma, and Immunology
  - Active Member #103773, 2009 Present
  - Aerobiology Committee, 2011 Present
  - Environmental Exposures and Respiratory Health Committee, 2011 Present
  - Allergic Fungal Respiratory Diseases Committee, 2019 Present
- American Association of Immunologists
  - Associate Member #00223623, 2011 Present
  - Minority Affairs Committee, 2011 Present
- American Association for the Advancement of Science
  - Member, 2010 2021
- American Society for Microbiology
  - Active Member, 2002 Present
  - o Mentor, Future Leaders Mentoring Fellowship Program, 2022 Present
- American Thoracic Society
  - Full Member #172864, 2018 Present
  - Allergy, Immunology, and Inflammation Assembly, 2018 Present
  - Environmental, Occupational, and Population Health Assembly, 2018 Present

- Respiratory Cell and Molecular Biology Assembly, 2018 Present
- Society of Toxicology
  - Active Member, 2011 Present
  - o Hispanic Organization of Toxicologist, 2011 Present
  - Immunotoxicology Section, 2011 Present
- Sigma Xi, The Scientific Society
  - Member At-Large, 2012 2020

## G. Leadership

- Johns Hopkins Postdoctoral Association
  - o Member, 2011 2013
  - Professional Development Committee, 2011 2013
- National Postdoctoral Association
  - o Member, 2011 2014
  - Resources Development Committee, 2011 2014
- Puerto Rico Legislature
  - o Ad Hoc Committee, Law 136 of July 27th, 2006: Regional Medical Academic Centers
- General Student Council, University of Puerto Rico Medical Sciences Campus
  - o President, 2005 2009
  - o Academic Senate (ex-officio), 2005-2009

## V. Mentoring

# A. Mentoring Programs

Mentor, Future Leaders Mentoring Fellowship, American Society for Microbiology. 2022

### B. Mentees

Career Mentoring			
Names	Years and Career Path Sought	Stage and Institution (while in career mentoring)	
Dr. Bianca Valdés-Fernández	2020 – Present (Non-Academic)	Postdoctoral Fellow, University of Puerto Rico Medical Sciences Campus	
Dr. Alexandra Colón-Rodríguez	2020 – Present	Science and Technology Policy Fellow, Planification and Research Office of the Governor (California)	

Graduate and Undergraduate Students				
Name	Degree Sought	Project Mentored	Institution	

Xaymara Hernández-González	MS	2020 – Present (Thesis Committee)	Dept. of Microbiology, University of Puerto Rico Medical Sciences Campus	
Lorraine N. Vélez-Torres	PhD	2018 – Present (Thesis Committee)	Dept. of Microbiology, University of Puerto Rico Medical Sciences Campus	
Ana Pérez	MS	2021 (Lab Mentoring)	College of Biomedical Sciences, Larkin University	
Brie Perdue	MS	2021 (Lab Mentoring)	College of Biomedical Sciences, Larkin University	
Chevine Johnson	MS	2021 (Lab Mentoring)	College of Biomedical Sciences, Larkin University	
Christian Ramos	MS	2021 (Lab Mentoring)	College of Biomedical Sciences, Larkin University	
Henna Patel	MS 2021 (Lab Mentorii		College of Biomedical Sciences, Larkin University	
Karoline Alves	MS	2021 (Lab Mentoring)	College of Biomedical Sciences, Larkin University	
Krystal Ramsaran	MS	2021 (Lab Mentoring)	College of Biomedical Sciences, Larkin University	
Stevanie Robinson	MS	2021 (Lab Mentoring)	College of Biomedical Sciences, Larkin University	
Summer Paris Vanitvelt	MS	2021 (Lab Mentoring)	College of Biomedical Sciences, Larkin University	
Donna Oh	MS	2019 – 2020 (Lab Mentoring)	College of Biomedical Sciences, Larkin University	
Nicole Benavides	MS	2019 – 2020 (Lab Mentoring)	College of Biomedical Sciences, Larkin University	
Shana Zadron	MS	2019 – 2020 (Lab Mentoring)	College of Biomedical Sciences, Larkin University	
Kylie Dagio	MS	2019 – 2020 (Lab Mentoring)	College of Biomedical Sciences, Larkin University	
Adria Guajardo	MS	2019 – 2020 (Lab Mentoring)	College of Biomedical Sciences, Larkin University	
Bhavik Patel	MS	2019 (Lab Mentoring)	College of Biomedical Sciences, Larkin University	
Tanha Rahman	BS	2019 (Summer Internship)	Nova Southeastern University	
Naziba Nuha	BS	2019 (Summer Internship)	Nova Southeastern University	
Summer Pellechio	MS	2019 (Lab Mentoring)	College of Biomedical Sciences, Larkin University	

Hyatt Srour	MS	2018 – 2020 (Lab Mentoring)	College of Biomedical Sciences, Larkin University	
Ruslan Fomenko	MS	2018 – 2019 (Lab Mentoring)	College of Biomedical Sciences, Larkin University	
Shandra Bellinger	MS	2018 – 2019 (Lab Mentoring)	College of Biomedical Sciences, Larkin University	
Ariel Stateman	MS	2018 – 2019 (Lab Mentoring)	College of Biomedical Sciences, Larkin University	
Josh Baguley	MS	2018 – 2019 (Lab Mentoring)	College of Biomedical Sciences, Larkin University	
Isabelita Martínez	MS	2015 – 2018 (Thesis Committee)	Dept. of Microbiology, University of Puerto Rico Medical Sciences Campus	
Frances Vilá-González	MS	2014 – 2017 (Thesis Committee)	Dept. of Microbiology, University of Puerto Rico Medical Sciences Campus	
Angélica M. Rivera	BS	2014-2015 (RISE Awardee)	Ana G. Méndez Universidad del Este	
Jesse Negherbon	PhD	2011 – 2013 (Lab Mentoring)	Johns Hopkins University Bloomberg School of Public Health	
Kranthi Vysyaraju	MS	2011 – 2013 (Lab Mentoring)	Johns Hopkins University Bloomberg School of Public Health	

## VI. Teaching

A. Graduate Level Teaching

2017 – 2022 Summer Term

**Course Director and Instructor**, MSb520, Molecular Genetics College of Biomedical Sciences of Larkin University

Spring Term

**Course Director and Instructor**, MSB502, Biochemistry II College of Biomedical Sciences of Larkin University

Fall Term

**Course Director and Instructor**, MSB501, Biochemistry I College of Biomedical Sciences of Larkin University

2015 – 2016 Spring Term

**Invited Instructor**, MICR 8540, Principles of Immunology Dept. of Microbiology, School of Medicine, University of Puerto Rico Medical Sciences Campus 2017 - 2018 Fall Term

**Instructor**, BSC1005, General Education Biology Miami Dade College North Campus

**Instructor**, MCB2010, Microbiology Miami Dade College Wolfson Campus

**Instructor**, MCB2010L, Microbiology Laboratory Miami Dade College Wolfson Campus

### 2016 – 2017 Summer Term

**Instructor**, BSC1005, General Education Biology Miami Dade College North Campus

**Instructor**, MCB2010, Microbiology Miami Dade College Wolfson Campus

**Instructor**, MCB2010L, Microbiology Laboratory Miami Dade College Wolfson Campus

# Spring Term

**Instructor**, BSC1005, General Education Biology Miami Dade College North Campus

### Fall Term

**Instructor**, MCB3023 Principles of Microbiology Miami Dade College North Campus

**Instructor**, MCB3023L, Microbiology Laboratory Upper Division Miami Dade College North Campus

## 2015 – 2016 Summer Term

**Instructor**, BSC 2011, Principles of Biology Miami Dade College Wolfson and North Campuses

**Instructor**, MSB201L, Microbiology Laboratory Miami Dade College Wolfson Campus

# Spring Term

**Instructor**, BSC1005, General Education Biology Miami Dade College Wolfson Campus

**Instructor**, MSB2010L, Microbiology Laboratory (2 sections) Miami Dade College Wolfson Campus

Fall Term

**Instructor**, BCH3023, Intro to Biochemistry Miami Dade College North Campus

**Instructor**, BSC1005, General Education Biology Miami Dade College Wolfson Campus

**Instructor**, MSB2010L, Microbiology Laboratory (2 sections) Miami Dade College Wolfson Campus

2014 – 2015 Summer Term

**Instructor**, MSB2010L, Microbiology Laboratory (3 sections) Miami Dade College Wolfson Campus

Spring Term

**Instructor**, BSC1005, General Education Biology Miami Dade College North Campus

**Instructor**, MSB2010L, Microbiology Laboratory (2 sections) Miami Dade College Wolfson Campus

Fall Term

**Instructor**, BCH3023, Intro to Biochemistry Miami Dade College North Campus

**Instructor**, BCH3023L, Intro to Biochemistry Laboratory Miami Dade College North Campus

**Instructor**, MSB2010L, Microbiology Laboratory (2 sections) Miami Dade College Wolfson Campus

2013 – 2014 Summer Term

**Instructor**, MSB2010L, Microbiology Laboratory (3 sections) Miami Dade College Wolfson Campus

### VII. Service

# A. University Committee

- Larkin University
  - University Committees
    - Capital Allocation Planning Committee, 2018 2020
    - Faculty Affairs Committee, 2018 2022
    - Inaugural Scientific Forum Organization Committee (Chair), 2018
    - Research Advisory Committee (Chair: 2018 2020), (Member: 2018 2022)
    - Scholarships Committee, 2018 2022
  - College of Biomedical Sciences Committees
    - Pre-Professional Recommendations Committee, 2018 2022