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Work Experience

2017 – Present **College of Biomedical Sciences, Larkin University, Miami, FL**
Assistant Professor and Academic Director

2017 (Aug – Dec) **College of Biomedical Sciences, Larkin University, Miami, FL**
Adjunct Professor

2014 – 2017 **Miami-Dade College, Miami, FL**
Adjunct Professor (Biology, Microbiology, Biochemistry)

2013 – Present **Consultant**
Aerobiology, Immunology, Computational Biological/Non-Biological Data Analysis

2012 – 2015 **American Journal Experts**
Developmental Editor

2010 – 2013 **Johns Hopkins Bloomberg School of Public Health, Baltimore, MD**
Postdoctoral Fellow (NIH T32 Training Program)

Education

2010 – 2013 **Johns Hopkins Bloomberg School of Public Health, Baltimore, MD**
Postdoctoral Fellow in Environmental Health Sciences
(mentors: Patrick Breysse, PhD, Thomas Hartung, PhD, MD)

2004 – 2010 **School of Medicine, University of Puerto Rico, San Juan, PR**
PhD in Microbiology (mentor: Benjamín Bolaños, PhD)

2001 **Southeastern Louisiana University, Hammond, La**
BS in Biology, minor in Chemistry; Baseball Athletic Scholarship

Additional Training

2016 – 2017 **Johns Hopkins University** (on www.coursera.org)
- *Mastering Software Development in R* (5-courses series)

University of California at San Diego (on www.coursera.org)
- *Bioinformatics* Specialization (7-courses series)

2016 **Johns Hopkins University** (on www.coursera.org)
- *Data Science Specialization* (10-courses series)
- *Genomic Data Science* Specialization (8-courses series)
- *Executive Data Science* Specialization (5-courses series)

Icahn School of Medicine at Mount Sinai (on www.coursera.org)
- *System Biology and Biotechnology* Specialization (6-courses series)

2015 – 2016 **Johns Hopkins School of Public Health** (on www.coursera.org)

- *Statistical Reasoning* for Public Health I: Estimation, Interference, Interpretation
- *Statistical Reasoning* for Public Health II: Regression Models

2013 – 2014 **American Society for Microbiology, Washington, DC**

- *Science Teaching Fellowship*

Publications

- González de Leon J, González Méndez R., Cadilla Vázquez CL, **Rivera-Mariani FE**, 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, **Rivera-Mariani FE**, 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.

- Bose S, **Rivera-Mariani FE**, 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.

- Vesper S, Choi H, Perzanowski P, Acosta LM, Divjan A, Bolaños-Rosero B, **Rivera-Mariani FE**, 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.

- **Rivera-Mariani FE**, 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.

- **Rivera-Mariani FE**. 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.

- Hasiwa N, Daneshian M, Bruegger P, Fennrich S, Fleck S, Hochadel A, Hoffman S, **Rivera-Mariani FE**, 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.

- **Rivera-Mariani FE**, 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.

- **Rivera-Mariani FE,** 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.

- **Rivera-Mariani FE** and Bolaños-Rosero B. Allergenicity of airborne basidiospores and ascospores: need for further studies. *Aerobiologia* 2012: 28(2): 83-97.

- **Rivera-Mariani FE**, 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.

- **Rivera-Mariani FE**, 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.

- Quintero E, **Rivera-Mariani FE**, 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.

Science Teaching Publications

- **Rivera-Mariani, FE**. 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 http://dx.doi.org/10.13140/RG.2.2.14868.09604

- **Rivera-Mariani, FE**. 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. http://dx.doi.org/10.13140/RG.2.1.2693.5921

- **Rivera-Mariani FE**. Rethinking our Postdoctoral Training. *Postdoctoral Journal*. 2012; 2 (2): 27-29.

Published Abstracts

- **Rivera-Mariani FE**, 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. Poster Presentation. American Association of Immunologists Annual Meeting May 2012. Boston, MA.

- **Rivera-Mariani FE**, 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. Poster Presentation. American Academy of Allergy, Asthma, and Immunology Annual Meeting, March, 2012. Orlando, FL.

- **Rivera-Mariani FE**, 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. Poster Presentation. American Academy of Allergy, Asthma, and Immunology Annual Meeting, February, 2010. New Orleans, La.

Presented Abstracts

- **Rivera-Mariani FE**, 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. *Gordon Research Seminar/Conference Immunology to Fungal Infections*. January 2013. Galveston, TX.

- **Rivera-Mariani FE**, 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. *International Society for Exposure Science* Annual Meeting, October, 2012. Seattle, WA.

- **Rivera-Mariani FE**, 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. **Best Poster in the Sampling and Laboratory Analysis Session**.

- **Rivera-Mariani FE**, Hartung T, Breysse PN. Evaluation of the Cooperative Proinflammatory Effect between Endotoxin and (1-3)-β-D-glucan with the *in-vitro* Pyrogen Test. Poster Presentation. *Society of Toxicology* Annual Meeting March, 2012, San Francisco, CA.

- **Rivera-Mariani FE**, Matsui E, Breysse PN. Immunodetection of Airborne Particulate Carrying Mouse Allergen. Poster Presentation. *International Society for Exposure Science* Annual Meeting, October, 2011. Baltimore, MD.

- **Rivera-Mariani FE**, Nazario-Jiménez S, López-Malpica F, and Bolaños-Rosero B. Airborne Ascospores and Basidiospores as Potential Allergens for Allergic Respiratory Diseases. Oral Presentation. International Association for Aerobiology 9th *International Congress on Aerobiology*, August, 2010. Buenos Aires, Argentina.

- **Rivera-Mariani FE**, Nazario-Jiménez S, and Bolaños-Rosero B. Prevalence of IgE Reactivities to Airborne Particulate by Asthmatic Subjects. Oral Presentation. *Pan-American Aerobiology Association* Annual Meeting, July, 2009. Kansas City, MO.

- **Rivera-Mariani FE**, Quintero E, and Bolaños-Rosero B. Fungal Spore in the Atmosphere of San Juan and Caguas: A Comparative Study. Oral presentation. *Pan-American Aerobiology Association* Annual meeting, June, 2007. Penn State University, Stage College, PA.

- Quintero E, **Rivera-Mariani FE**, and Bolaños-Rosero B. Fungal Spore and Pollen in the Atmosphere of San Juan. Poster presentation. *Pan-American Aerobiology Association* Annual Meeting, June 2007. Penn State University, Stage College, PA.

Research Awards

2018 **Collaborator** – 1R21ES029761-01 (PI. Humberto Cavallin)
Taking a Breath after the Disaster: Homes, Molds and Health in Puerto Rico after Hurricane Maria

2016 **Teachers in Space, Inc.**
Design of a CubeSat with a Removable Specimen Collector to Investigate the Potential of Allergenic Fungal Spores to Reach into the Stratosphere.
***Principal Investigador*:** (http://www.friveram.com/PRCUbeStars)

2013 **Postdoctoral Collaboration** - 3R01ES018845-04S1 (PI: Nadia Hansel)
Genetic Susceptibility to Asthma and Indoor Air Pollution in Peru

2012 **Ethical Consumer Association**, London, UK
Lush Prize Young Researcher Award, $20,000.

2011 **Johns Hopkins University, Bloomberg School of Public Health**

David Leslie Swift Fund in Environmental Health Engineering, $2,000.

2010 **International Association for Aerobiology**
Young Aerobiologist Award

Travel Awards

2018 Early Career Faculty Travel Award, Austin, TX
American Association of Immunologists.

2013 Immunology of Fungal Infections, Gordon Conference, Galveston, TX
Carl Storm Underrepresented Minority Fellowship Travel Award

2012 International Society for Exposure Science, Seattle, WA
New Researcher Travel Award

2012 American Academy of Allergy, Asthma and Immunology, Orlando, FL
Domestic Fellows-in-Training Travel Award

2011 Federation of American Societies for Experimental Biology, Virginia Beach, VA.
Minority Access to Research Careers Travel Award

2010 American Academy of Allergy, Asthma and Immunology, New Orleans, LA
Fellow-in-Training Travel Award

2010 International Association for Aerobiology Meeting, Buenos Aires, Argentina
Latin American Travel Award

2009 Pan American Aerobiology Association, Kansas City, MO
Latin American Travel Award

2007 Pan American Aerobiology Association, State College, PA
Lanzoni's Student Award

Current Professional Memberships

2017 – Present **American Association of University Professors**

2012 – Present **Sigma Xi, The Scientific Research Society**

2011 – Present **American Association of Immunologists**

2011 – Present **Society of Toxicology**

2010 – Present **American Association for the Advancement of Science**

2009 – Present **American Academy of Allergy, Asthma and Immunology**

2002 – Present **American Society for Microbiology**

Leadership and Committee Work

2018 **Larkin University**
Ph.D. in Clinical and Translational Research Committee (***Chair***)
Scientific Forum Organizing Committee (***Chair***)

2017 – Present **Larkin University**
Scientific Research Committee
Faculty Affairs Committee
SACS Accreditation Committee

2010 – 2014 **National Postdoctoral Association**
Resources Development Committee

2011 – 2013 **Johns Hopkins Postdoctoral Association**
Professional Development Committee

2006 **Puerto Rico Legislature**
(*Ad Hoc* Committee, Law 136 of July 27th, 2006 – Regional Medical Academic Centers)

2005 – 2009 **University of Puerto Rico – Medical Sciences Campus**
Academic Senate (*Ex-Officio*)

2005 – 2009 **University of Puerto Rico – Medical Sciences Campus**
Student Disciplinary Board

2005 – 2009 **University of Puerto Rico – Medical Sciences Campus**
President, General Student Council

Editorial activities

2017 – Present **Annals of Agricultural and Environmental Medicine**
Ad-hoc reviewer

2017 **Annual Biomedical Research Conference for Minority Students 2017**
Meeting (Judge of Posters and Presentations)

2017 – Present **Annual Biomedical Research Conference for Minority Students**
Abstract Reviewer

2015 – Present **Conrad Spirit Innovation Challenge**
(Proposal Reviewer)

2013 – Present **Sigma Xi Student Research Showcase**
(Abstract Reviewer)

2011 – Present **Aerobiologia**
(Ad Hoc Reviewer)

2011 – Present **SACNAS National Conference**
(Abstract reviewer)

2013 **Journal of Postdoctoral Research**

(Editor)

2012 – 2013 **Johns Hopkins Postdoctoral Association**
Co-Editor Quarterly Newsletter

2011 – 2012 **Society of Toxicology**
Ad Hoc Reviewer, Occupational, Public Health section

Invited Talks

- **AAAS Florida Biomedical Career Symposium.** Jupiter, FL (Scripps Institute). Science Education Careers. ***January 2018.***

- **University of Puerto Rico – Carolina Campus.** Workshop. Image Analysis in Biological Sciences (from Western blot to Data-Driven Decisions). ***June 2017.***

- **Math and Sciences Specialized High School Thomas Armstrong Toro. Ponce, PR. 2016 and 2017**. Workshop. Doing Science: From Start to Finish. ***January 2016 and 2017*.**

- **9th Annual NIH Career Symposium, Bethesda, Maryland.** Teaching-Intensive Careers. ***May 2016.***

- **Department of Microbiology, School of Medicine, University of Puerto Rico – Medical Sciences Campus. San Juan.** Immunological intervention to evaluate the human health effects of indoor and outdoor biological and non-biological airborne contaminants. ***February 2015***.

- **Department of Biology, University of Puerto Rico – Bayamon Campus. Bayamon, PR.** Immunological intervention to evaluate the human health effects of indoor and outdoor biological and non-biological airborne contaminants. ***March 2015****.*

- **Department of Microbiology, College of Medical Sciences, Nova Southeastern University, Davie, FL.** A Review of Fungi Relevant to Dentistry. ***August 2013****.*

- **National Postdoctoral Association 11th Annual Meeting**. Postdoc Diversity: Solution for Faculty Diversity. Co-Presenter with Dr. Jennifer Cohen and Dr. Cara Altimus. Charleston, SC. ***March 2013.***

- **Department of Biology of the College of Sciences and Technology, Southeastern Louisiana University, Hammond, LA.** Allergenicity and proinflammatory potential of uncharacterized airborne fungi. ***October 2012.***

Mentoring Experience

2017 – Present **College of Biomedical Sciences, Larkin University**
Respiratory and Immunology Project at Larkin University, research group of 13 graduate students: https://www.friveram.com/RIPL_Effect/

2014 – Present **Department of Microbiology, School of Medicine, University of Puerto Rico**
Isabelita Martínez (MS Thesis Committee); Frances Vila (MS Thesis Committee)

2014 – 2015 **Department of Microbiology, School of Medicine, University of Puerto Rico**
Angélica M. Rivera (Research Initiative for Scientific Enhancement awardee)

2011 – 2013 **Johns Hopkins Bloomberg School of Public Health, Baltimore, MD**

Dr. Jesse Negherbon (Dr. Breysse graduate student; NIOSH grant awardee) Kranthi Vysyaraju (Dr. Hartung's graduate student; earned MS degree)

Leadership and Committee Work

2018 **Scientific Forum Organizing Committee (Chair)**, Larkin University

2017 – Present **Research Committee**, Larkin University

2017 – Present **Faculty Council**, Larkin University

2010 – 2014 **Resources Development Committee**, National Postdoctoral Association

2011 – 2013 **Professional Development Committee**, Johns Hopkins Postdoctoral Association

2006 **Puerto Rico Legislature** (*Ad Hoc* Committee, Law 136 of July 27th, 2006 – Regional Medical Academic Centers)

2005 – 2009 **Academic Senate (*Ex-Officio*)**, Univ. of Puerto Rico – Medical Sciences Campus

2005 – 2009 **Student Disciplinary Board**, Univ. of Puerto Rico – Medical Sciences Campus

2005 – 2009 President, **General Student Council, University of Puerto Rico - Medical Sciences Campus**

Courses Taught

2017 – 2018 **Summer Term, College of Biomedical Sciences, Larkin University, Miami, FL**
Molecular Genetics (MSB520)

2017 – 2018 **Spring Term, College of Biomedical Sciences, Larkin University, Miami, FL**
Medical Biochemistry 2 (MSB502)
Immunology (MSB 511)

Fall Term, College of Biomedical Sciences, Larkin University, Miami, FL
Medical Biochemistry 1 (MSB501)

2017 – 2018 **Fall Term, Miami Dade College, Miami, FL**
General Education Biology (BSC1005, section 1812)
Microbiology (MCB2010, section 2001)
Microbiology Lab (MCB2010L, sections 1737, 1749)

2016 – 2017 **Summer Term, Miami Dade College, Miami, FL**
General Education Biology (BSC1005, section 1501)
Microbiology Lab (MCB2010L, section 1419)
Microbiology Lab (MCB2010L, section 1441)

Spring Term, Miami Dade College, Miami, FL
General Education Biology (BSC1005, section 1852)

Fall Term, Miami Dade College, Miami, FL
Principles of Microbiology (MCB3023, section 13352)
Microbiology Lab (MCB3023L, section 13354)

2015 – 2016 **Summer Term, Miami Dade College, Miami, FL**
Principles of Biology 2 (BSC2011, section 1247)
Microbiology Lab (MCB2010L, section 1732)

Spring Term, School of Medicine, University of Puerto Rico, San Juan, PR
Principles of Immunology (invited professor)

Spring Term, Miami Dade College, Miami, FL
General Education Biology (BSC1005, section 6941)
Microbiology Lab (MCB2010L, section 8955)

Fall Term, Miami Dade College, Miami, FL
Intro Biochemistry (BCH3023, section 1988)
General Education Biology (BSC1005, section 2514)
Microbiology Lab (MCB2010L, section 1774)
Microbiology Lab (MCB2010L, section 1777)

2014 – 2015 **Summer Term, Miami Dade College, Miami, FL**
Microbiology Lab (MCB2010L, section 1773)
Microbiology Lab (MCB2010L, section 1774)
Microbiology Lab (MCB2010L, section 1775)

Spring Term, Miami Dade College, Miami, FL
General Education Biology (BSC1005, section 3369)
Microbiology Lab (MCB2010L, section 2230)
Microbiology Lab (MCB2010L, section 2231)

Fall Term, Miami Dade College, Miami, FL
Intro Biochemistry (BCH3023, section 2546)
Intro Biochemistry Lab (BCB3023L, section 6164)
Microbiology Lab (MCB2010L, section 2226)
Microbiology Lab (MCB2010L, section 2230)

2013 – 2014 **Summer Term, Miami Dade College, Miami, FL**
Microbiology Lab (MCB2010L, section 1732)
Microbiology Lab (MCB2010L, section 1764)
Microbiology Lab (MCB2010L, section 1766)