

**Félix E. Rivera-Mariani, PhD**

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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](http://www.coursera.org))
- *Mastering Software Development in R* (5-courses series)
- University of California at San Diego** (on [www.coursera.org](http://www.coursera.org))
- *Bioinformatics Specialization* (7-courses series)
- 2016                **Johns Hopkins University** (on [www.coursera.org](http://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](http://www.coursera.org))
- *System Biology and Biotechnology Specialization* (6-courses series)

- 2015 – 2016      **Johns Hopkins School of Public Health** (on [www.coursera.org](http://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-1 $\beta$ -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)- $\beta$ -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**, 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.
- **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**, 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.
- **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.
- **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.
- 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.

### **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, Breyse PN. Immunodetection of (1-3)- $\beta$ -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, Breyse PN. Evaluation of the Cooperative Proinflammatory Effect between Endotoxin and (1-3)- $\beta$ -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, Breyse 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 9<sup>th</sup> *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  
\$424,956
- 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  
\$410,571
- 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  
\$1000

#### **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

#### **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**

### **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.**
- **9<sup>th</sup> 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 11<sup>th</sup> 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.**

### **Leadership and Committee Work**

|                |   |
|----------------|---|
| 2018           | <b>American Association for the Advancement of Science</b><br>Session Proposal Reviewer   |
| 2018           | <b>Larkin University</b><br>Ph.D. in Clinical and Translational Research Committee ( <b>Chair</b> )<br>Scientific Forum Organizing Committee ( <b>Chair</b> ) |
| 2017 – Present | <b>Larkin University</b><br>Scientific Research Committee<br>Faculty Affairs Committee<br>SACS Accreditation Committee  |
| 2010 – 2014    | <b>National Postdoctoral Association</b><br>Resources Development Committee   |
| 2011 – 2013    | <b>Johns Hopkins Postdoctoral Association</b><br>Professional Development Committee   |

|             |   |
|-------------|---|
| 2006        | <b>Puerto Rico Legislature</b><br>( <i>Ad Hoc</i> Committee, Law 136 of July 27 <sup>th</sup> , 2006 – Regional Medical Academic Centers) |
| 2005 – 2009 | <b>University of Puerto Rico – Medical Sciences Campus</b><br>Academic Senate ( <i>Ex-Officio</i> )                                       |
| 2005 – 2009 | <b>University of Puerto Rico – Medical Sciences Campus</b><br>Student Disciplinary Board  |
| 2005 – 2009 | <b>University of Puerto Rico – Medical Sciences Campus</b><br><i>President</i> , General Student Council                                  |

### **Editorial Activities**

|                |  |
|----------------|--|
| 2017 – Present | <b>Annals of Agricultural and Environmental Medicine</b><br><i>Ad-hoc reviewer</i>                                   |
| 2017           | <b>Annual Biomedical Research Conference for Minority Students 2017</b><br><i>Judge of Posters and Presentations</i> |
| 2017 – Present | <b>Annual Biomedical Research Conference for Minority Students</b><br><i>Abstract Reviewer</i>                       |
| 2015 – Present | <b>Conrad Spirit Innovation Challenge</b><br><i>Proposal Reviewer</i>  |
| 2013 – Present | <b>Sigma Xi Student Research Showcase</b><br><i>Abstract Reviewer</i>  |
| 2011 – Present | <b>Aerobiologia</b><br><i>Ad Hoc Reviewer</i>  |
| 2011 – Present | <b>SACNAS National Conference</b><br><i>Abstract reviewer</i>  |
| 2013           | <b>Journal of Postdoctoral Research</b><br><i>Editor</i>   |
| 2012 – 2013    | <b>Johns Hopkins Postdoctoral Association</b><br><i>Co-Editor Quarterly Newsletter</i>                               |
| 2011 – 2012    | <b>Society of Toxicology</b><br><i>Ad Hoc Reviewer, Occupational, Public Health section</i>                          |

### **Mentoring Experience**

|                |  |
|----------------|--|
| 2017 – Present | <b>College of Biomedical Sciences, Larkin University</b><br>Respiratory and Immunology Project at Larkin University, research group of 13 graduate students: <a href="https://www.friveram.com/RIPL_Effect/">https://www.friveram.com/RIPL_Effect/</a> |
| 2014 – Present | <b>Department of Microbiology, School of Medicine, University of Puerto Rico</b><br>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. Breyse graduate student; NIOSH grant awardee) Kranthi  
Vysyaraju (Dr. Hartung's graduate student; earned MS degree)

**Courses Taught**

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

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

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

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

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

- Spring Term**  
*General Education Biology (BSC1005, section 1852)*

- Fall Term**  
*Principles of Microbiology (MCB3023, section 13352)*  
*Microbiology Lab (MCB3023L, section 13354)*

- 2015 – 2016      **University of Puerto Rico - School of Medicine, San Juan, PR**  
*Principles of Immunology (invited professor)*

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

- Spring Term**



*General Education Biology* (BSC1005, section 6941)  
*Microbiology Lab* (MCB2010L, section 8955)

**Fall Term**

*Intro Biochemistry* (BCH3023, section 1988)  
*General Education Biology* (BSC1005, section 2514)  
*Microbiology Lab* (MCB2010L, section 1774)  
*Microbiology Lab* (MCB2010L, section 1777)

2014 – 2015

**Miami Dade College, Miami, FL**

**Summer Term**

*Microbiology Lab* (MCB2010L, section 1773)  
*Microbiology Lab* (MCB2010L, section 1774)  
*Microbiology Lab* (MCB2010L, section 1775)

**Spring Term**

*General Education Biology* (BSC1005, section 3369)  
*Microbiology Lab* (MCB2010L, section 2230)  
*Microbiology Lab* (MCB2010L, section 2231)

**Fall Term**

*Intro Biochemistry* (BCH3023, section 2546)  
*Intro Biochemistry Lab* (BCB3023L, section 6164)  
*Microbiology Lab* (MCB2010L, section 2226)  
*Microbiology Lab* (MCB2010L, section 2230)

2013 – 2014

**Miami Dade College, Miami, FL**

**Summer Term**

*Microbiology Lab* (MCB2010L, section 1732)  
*Microbiology Lab* (MCB2010L, section 1764)  
*Microbiology Lab* (MCB2010L, section 1766)