

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)
- *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*. DOI: **10.1159/000484898**.
- Vila-Herester F, **Rivera-Mariani FE**, Bolanos-Rosero B. Serological reactivity and IgE-binding polypeptides to *Ganoderma applanatum* Crude 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 β -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, State 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, State College, PA.

Research Awards

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| 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.frivram.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

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

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

2011 – Present **American Association of Immunologists**

2011 – Present **Society of Toxicology**

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

2007 – Present **International Association for Aerobiology**

2002 – Present **American Society of Microbiology**

Editorial activities

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

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

Reviewer)

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| 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

- **University of Puerto Rico – Carolina Campus. June 2017.** Workshop. Image Analysis in Biological Sciences (from Western blot to Data-Driven Decisions).
- **Math and Sciences Specialized High School Thomas Armstrong Toro. Ponce, PR. 2016 and 2017.** Workshop. Doing Science: From Start to Finish.
- **9th Annual NIH Career Symposium, Bethesda, Maryland. 2016.** Teaching-Intensive Careers.
- **Department of Microbiology, School of Medicine, University of Puerto Rico – Medical Sciences Campus. San Juan, February 2015.** Immunological intervention to evaluate the human health effects of indoor and outdoor biological and non-biological airborne contaminants.
- **Department of Biology, University of Puerto Rico – Bayamon Campus. Bayamon, PR. March 2015.** Immunological intervention to evaluate the human health effects of indoor and outdoor biological and non-biological airborne contaminants.
- **Department of Microbiology, College of Medical Sciences, Nova Southeastern University, Davie, FL. August, 2013.** A Review of Fungi Relevant to Dentistry.
- **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. October 2012.** Allergenicity and proinflammatory potential of uncharacterized airborne fungi.

Courses Taught

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| 2017 – 2018 | Spring Term, College of Biomedical Sciences, Larkin University, Miami, FL <i>Medical Biochemistry 2 (MSB502)</i> |
| | Fall Term, College of Biomedical Sciences, Larkin University, Miami, FL <i>Medical Biochemistry 1 (MSB501)</i> |

- 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)

Mentoring Experience

2017 – Present **College of Biomedical Sciences, Larkin University**
Respiratory and Immunology Project at Larkin University, 13-students research group
https://www.frivaram.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. Breyse graduate student; NIOSH grant awardee) Kranthi
Vysyaraju (Dr. Hartung's graduate student; earned MS degree)

Leadership Experience

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

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

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

2005 – 2009 **General Student Council, University of Puerto Rico - Medical Sciences Campus**
(*elected President 2005-2009; Academic Senate 2005-2009*)