

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.* 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 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**, 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** and Bolaños-Rosero B. 2018. Principal Component Analysis to Evaluate Relationships in Reactivity to Commercial Extracts and Uncharacterized Fungi among Asthmatic and Allergic Rhinitis Subjects. Annual Meeting of the American Association of Immunologists, May 4-8. Austin, TX. Abstract. 44.2
- **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

- 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.**
- **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.**

Leadership and Committee Work

2018	American Association for the Advancement of Science Session Proposal Reviewer
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**
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

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. 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)