

ESTHER BORGES FLORSHEIM

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EDUCATION

2020	Post-doc	Yale University School of Medicine	Inflammation & Behavior
2014	PhD	University of São Paulo	Immunology
2009	B.Sc.	University of São Paulo	Health Sciences

POSITIONS AND EMPLOYMENT

2021 -	Assistant Professor School of Life Sciences, Center for Immunotherapy, Vaccines, & Virotherapy Arizona State University <i>effective January 1, 2021</i>
2015 - 2020	Postdoctoral Scholar with Prof. Ruslan Medzhitov, Dept of Immunobiology Yale University School of Medicine
2009 - 2014	Immunology PhD Student with Prof. Momtchilo Russo, Dept of Immunology University of São Paulo
2012 - 2013	Graduate Fellow with Prof. Ruslan Medzhitov, Dept of Immunobiology Yale University School of Medicine
2011	Graduate Fellow with Prof. Maria Leite-de-Moraes Institut Necker Enfants-Malades
2008	Post-graduate Research Assistant, Dept of Ecology Forestry Institute of the State of São Paulo
2005 - 2008	Undergraduate Fellow, Dept of Immunology University of São Paulo

PROFESSIONAL SERVICE & MEMBERSHIP

2020 - present	Member, PsychoNeuroImmunology Research Society
2020 - present	Member, Food Allergy Research Initiative
2020	Participant and speaker, Spook-takular Science Yale program for high-school students in the New Haven community
2015 - present	Reviewer for eLife, Nature Communications, The Journal of Immunology, PLOS One, The International Journal of Molecular Sciences, Mediators of Inflammation, Biomedical Journal
2020	Co-organizer, Yale-CAPES Seminars in Biomedical Sciences (<i>postponed</i>)
2018 - 2020	Founder and organizer, Philosophy of Science peer-group for Yale biology post-docs
2017 - 2020	Co-founder and organizer, happy-hour for women at the Dept of Immunobiology, Yale University School of Medicine
2016 - 2020	Co-founder and member, Immunobiology Working Group on Diversity & Inclusion
2018 - 2019	Member, Women in Science Mentoring Group with Profs. Jessica Cardin and Sreeranga Chandra, Yale School of Medicine
2017, 2019	Co-organizer and postdoctoral representative, Yale Immunobiology Dept Retreat
2015 - 2018	Co-founder and organizer, Allergy Group Meetings for Medzhitov Lab members
2007 - 2014	Member, Brazilian Society for Immunology

- 2010 - 2012 Elected student representative, Institute of Biomedical Sciences, University of Sao Paulo
 2010 - 2012 Elected student representative, Dept of Immunology, University of Sao Paulo
 2009 - 2011 Founder and organizer, *Research in Progress* presentations for graduate students, Dept of Immunology, University of São Paulo

AWARDS

- 2020 Travel award and invited talk, *Gordon Research Conference*
 2019 Best presentation award, *2nd Annual Yale Postdoc Symposium*, Yale University
 2018 AAI Young Investigator Award, *New England Immunology Conference*, MBL
 2018 Travel award, *The Cell-Weizmann Institute of Science Symposium*, Israel
 2017 Best content and presentation awards, *Flipped Science Fair*, Yale University
 2008 Honorable mention/best presentation, *Young Researchers Program*, University of Sao Paulo

PUBLICATIONS

1. **Florsheim EB***, Sullivan ZA*, Khoury-Hanold W*, Medzhitov R. Food allergy as a biological food quality control system. *Cell*. 2021 Jan 11;. doi: 10.1016/j.cell.2020.12.007. [Epub ahead of print] Review. PMID: 33450204. *co-authors
2. Altwerger G, **Florsheim E**, Menderes G, Black J, Schwab C, Gressel GM, Nelson WK, Carusillo N, Passante T, Huang G, Litkouhi B, Azodi M, Silasi DA, Santin A, Schwartz PE, Ratner ES. Impact of carboplatin hypersensitivity and desensitization on patients with recurrent ovarian cancer. *J Cancer Res Clin Oncol*. 2018 Dec; 144(12):2449-2456. doi: 10.1007/s00432-018-2753-y. PMID: 30255380.
3. Barros MS, Gomes E, Gueroni DI, Ramos AD, Mirotti L, **Florsheim E**, Bizzarro B, Lino CN, Maciel C, Lino-Dos-Santos-Franco A, Tavares-de-Lima W, Capurro ML, Russo M, Sá-Nunes A. Exposure to *Aedes aegypti* Bites Induces a Mixed-Type Allergic Response following Salivary Antigens Challenge in Mice. *PLoS One*. 2016; 11(5):e0155454. doi: 10.1371/journal.pone.0155454. PMID: 27203689.
4. **Florsheim E**, Yu S, Bragatto I, Faustino L, Gomes E, Ramos RN, Barbutto JA, Medzhitov R, Russo M. Integrated innate mechanisms involved in airway allergic inflammation to the serine protease subtilisin. *J Immunol*. 2015 May 15;194(10):4621-30. doi: 10.4049/jimmunol.1402493. PMID: 25876764.
5. Faustino L, Fonseca DM, **Florsheim E**, Resende RR, Lepique AP, Faquim-Mauro E, Gomes E, Silva JS, Yagita H, Russo M. Tumor necrosis factor-related apoptosis-inducing ligand mediates the resolution of allergic airway inflammation induced by chronic allergen inhalation. *Mucosal Immunol*. 2014 Sep; 7(5):1199-208. doi: 10.1038/mi.2014.9. PMID: 24569802.
6. Palm NW, Rosenstein RK, Yu S, Schenten DD, **Florsheim E**, Medzhitov R. Bee venom phospholipase A2 induces a primary type 2 response that is dependent on the receptor ST2 and confers protective immunity. *Immunity*. 2013 Nov 14;39(5):976-85. doi: 10.1016/j.immuni.2013.10.006. PMID: 24210353.
7. Barboza R, Câmara NO, Gomes E, Sá-Nunes A, **Florsheim E**, Mirotti L, Labrada A, Alcântara-Neves NM, Russo M. Endotoxin exposure during sensitization to *Blomia tropicalis* allergens shifts Th2 immunity towards a Th17-mediated airway neutrophilic inflammation: role of TLR4 and TLR2. *PLoS One*. 2013;8(6):e67115. doi: 10.1371/journal.pone.0067115. PMID: 23805294.
8. Castro JM, Resende RR, Mirotti L, **Florsheim E**, Albuquerque LL, Lino-dos-Santos-Franco A, Gomes E, de Lima WT, de Franco M, Ribeiro OG, Russo M. Role of m2 muscarinic receptor in the airway response to methacholine of mice selected for minimal or maximal acute inflammatory response. *Biomed Res Int*. 2013; 2013:805627. doi: 10.1155/2013/805627. PMID: 23691511.

9. Faustino L, da Fonseca DM, Takenaka MC, Mirotti L, **Florsheim E**, Guerreschi MG, Silva JS, Basso AS, Russo M. Regulatory T cells migrate to airways via CCR4 and attenuate the severity of airway allergic inflammation. *J Immunol*. 2013 Mar 15;190(6):2614-21. doi: 10.4049/jimmunol.1202354. PMID: 23390295.
10. Mirotti L, **Florsheim E**, Rundqvist L, Larsson G, Spinozzi F, Leite-de-Moraes M, Russo M, Alcocer M. Lipids are required for the development of Brazil nut allergy: the role of mouse and human iNKT cells. *Allergy*. 2013 Jan;68(1):74-83. doi: 10.1111/all.12057. PMID: 23137012.

GRANTS & FELLOWSHIPS

2020 - 2023	Food Allergy Research & Education Foundation (postdoctoral research grant) PI: Ruslan Medzhitov, Co-PI: Marcelo Dietrich
2009 - 2014	Sao Paulo Research Foundation FAPESP (Ph.D. fellowship grant)
2012 - 2013	FAPESP Research Internships Abroad for Honors Doctorate Award (fellowship grant, Medzhitov lab)
2011	FAPESP (research grant, Leite-de-Moraes lab)
2010 - 2011	National Research Council CNPq (teaching assistant fellowship)
2007 - 2008	Young Investigator Award FAPESP (fellowship grant, Russo lab)
2005 - 2007	CNPq Research Award (fellowship grant, Russo lab)

TEACHING

Fall 2021 The immunological origins of disease, graduate course

As a Post-doc and Graduate Student

2016 - 2020	Workshops and classes: Mentoring in the Lab, Course Design, Preparing and Delivering an Effective Lecture, Teaching International Students, Fundamentals of Teaching I and II, Teaching and Mentoring in a Lab Environment, Theory and Practice of Scientific Teaching for Life Scientists
2017 - 2018	Guest lecturer: How to prepare your story for the Flipped Science Fair, Scientific teaching for life scientists, Immunity and Microbes for Yale undergraduate students (Fall and Spring)
2008 - 2011	Teaching fellow: Immunology of Infectious Diseases, Advanced and Clinical Immunology, Basic Immunology, General Properties of the Immune System

MENTORING

Undergraduates

2021 - present Jahnvi Parmar, The Honors College at Arizona State University

Graduate Students (Thesis Committee)

2021 - present Evelyn Luna

Graduate, Undergraduate, and High School Mentees as a Post-doc and Graduate student

2019	Nathaniel Bachtel, Yale School of Medicine, MD-PhD student
2018	Timothy Sullivan, Hopkins School – CT, High school student
2017	Jacob Siegel, Yale School of Medicine, MD student
2016	Arthur Baisangurov, Moscow University, Undergraduate student
2015	Gowri Kaluglotla, Yale University, Undergraduate student
2015	Ana Alicia Cirac, Technical University of Munich, MD-PhD student
2010	Paulo Masini, Anhembi-Morumbi University, Undergraduate student

2009 Monique Baron, Uninove University, Undergraduate student

Invited Talks

10/2021 TBD
Harvard University - Dept of Molecular and Cellular Biology Seminar Series *pending*

03/2021 TBD
Arizona State University - Center for Evolutionary Medicine Seminar Series

02/2021 “Mammalian sensory systems: a neuro-immunology example”
Arizona State University and Barrow Neurological Institute - 11th Annual ASU-BNI Neuroscience Research Symposium

02/2021 “Immunological defenses to food”
Arizona State University - Center for Immunotherapy, Vaccines, and Virotherapy Seminar Series

10/2020 “The physiological immune system”
Arizona State University - School of Life Sciences Seminar Series

10/2020 “Immunological zombies: how allergens can change behavior”
Zombie Apocalypse Medicine Meeting

08/2020 “Experimental models of food allergy”
Food Allergy Science Initiative FASI regular meeting

06/2020 “Immunological basis of food aversion”
European Academy of Allergy and Clinical Immunology EAACI (digital congress)

02/2020 “Immunological basis of behavior: allergy & avoidance”
Arizona State University School of Life Sciences & Biodesign Institute (CIVV)

01/2020 “IgE-dependent taste preference”
II Gordon Research Conference on Food Allergy

12/2019 “Neuroimmune mechanisms in allergies”
Yale-CAPES Seminars in Biomedical Sciences

03/2019 “Immune-mediated allergen sensing controls avoidance behavior”
Keystone Symposia on Mammalian Sensory Systems

02/2019 “The Immunology of Aversion”
Yale School of Medicine, Immunobiology Dept, Research in Progress

10/2018 “Neuroimmune mechanisms of food aversion”
University of Sao Paulo, Institute of Biomedical Sciences, Dept of Immunology

09/2018 “Neuroimmune mechanisms of food aversion”
The Rockefeller University, invited seminar to the Mucida Lab

08/2018 “Neuroimmune mechanisms of food aversion”
Food Allergy Science Initiative, The Broad Institute, regular seminar

01/2018 “Characterizing the neuroimmune mechanisms of food aversion”
Gordon Research Conference on Food Allergy

01/2017 “Allergic inflammation and food aversion”
Yale University School of Medicine, Dept of Comparative Medicine, invited seminar to the Dietrich Lab

04/2016 “Allergic sensitization as adaptation to stress”
University of Sao Paulo, Institute of Biomedical Sciences, Dept of Immunology