

Apollo Stacy, PhD

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Education & Research Experience

- 2022–present Assistant Staff
Cleveland Clinic Lerner Research Institute
Department of Cardiovascular & Metabolic Sciences
- 2017–2022 Postdoctoral Fellow
National Institute of Allergy & Infectious Diseases (Bethesda, MD)
Laboratory of Host Immunity and Microbiome
Mentor: Yasmine Belkaid, PhD
- 2010–2017 Ph.D. in Microbiology
The University of Texas at Austin (Austin, TX)
Department of Molecular Biosciences
Mentor: Marvin Whiteley, PhD
- 2006–2010 B.A. in Biology and Earth & Planetary Sciences (*magna cum laude*)
Washington University in St. Louis (St. Louis, MO)

Publications

<https://scholar.google.com/citations?hl=en&user=u4ljzqkAAAAJ>

- 2021 **Stacy A***, Andrade-Oliveira V, McCulloch JA, Hild B, Oh JH, Perez-Chaparro PJ, Sim CK, Lim AI, Link VM, Enamorado M, Trinchieri G, Segre JA, Rehmann B, Belkaid Y. Infection trains the host for microbiota-enhanced resistance to pathogens. **Cell**. 184(3):615-627.e17. PMID: 33453153. ***Co-corresponding author**
- *Nature News & Views*: <https://www.nature.com/articles/d41586-021-00642-7>
 - *Nature Reviews Microbiology* highlight: <https://www.nature.com/articles/s41579-021-00513-y>
- 2021 Lim AI, McFadden T, Link VM, Han SJ, Karlsson RM, **Stacy A**, Farley TK, Harrison OJ, Shih HY, Cameron HA, Belkaid Y. Maternal infection promotes offspring tissue-specific immune fitness. **Science**. 373(6558):eabf3002. PMID: 34446580.
- 2021 Sim CK, Saheb-Kashaf S, **Stacy A**, Proctor DM, Almeida A, Bouladoux N, Chen M, NISC Comparative Sequencing Program, Finn RD, Belkaid Y, Conlan S, Segre JA. A mouse model of intestinal occult colonization demonstrating antibiotic-induced outgrowth of carbapenem-resistant *Enterobacteriaceae*. **Microbiome**. 10(1):43. PMID: 35272717
- 2019 **Stacy A** and Belkaid Y. Microbial guardians of skin health. **Science**. 363(6424):227-228. PMID: 30655428.
- 2019 Lewin GR, **Stacy A**, Michie KL, Lamont RJ, Whiteley M. Large-scale identification of pathogen essential genes during coinfection with sympatric and allopatric microbes. **Proceedings of the National Academy of Sciences**. 116(39):19685-19694. PMCID: PMC6765283.

- This Week in Microbiology highlight: <https://www.microbe.tv/twim/twim-208/>
- 2017 Narayanan AM, Ramsey MM, **Stacy A***, Whiteley M*. Defining genetic fitness determinants and creating genomic resources for an oral pathogen. **Applied and Environmental Microbiology**. 83(14):e00797-17. PMID: PMC5494627. ***Co-corresponding author**. Undergraduate mentee.
- Editor's pick: <https://aem.asm.org/content/83/14/e01130-17>
- 2017 Jiang YS, **Stacy A**, Whiteley M, Ellington AD. Amplicon competition enables end-point quantitation of nucleic acids following isothermal amplification. **ChemBioChem**. 18(17):1692-1695. PMID: PMC5890436.
- 2017 Ibberson CB, **Stacy A**, Fleming D, Dees JL, Rumbaugh K, Gilmore MS, Whiteley M. Co-infecting microbes dramatically alter pathogen gene essentiality during polymicrobial infection. **Nature Microbiology**. 2:17079. PMID: PMC5774221.
- 2016 **Stacy A**, Abraham N, Jorth P, Whiteley M. Microbial community composition impacts pathogen iron availability during polymicrobial infection. **PLOS Pathogens**. 12(12):e1006084. PMID: PMC5156373. Undergraduate mentee.
- 2016 **Stacy A**, Fleming D, Lamont RJ, Rumbaugh KP, Whiteley M. A commensal bacterium promotes virulence of an opportunistic pathogen via cross-respiration. **mBio**. 7(3):e00782-16. PMID: PMC4916382.
- Editor's pick and *mBio* commentary: <http://mbio.asm.org/content/7/4/e01249-16.short>
- 2016 **Stacy A**, McNally L, Darch SE, Brown SP, Whiteley M. The biogeography of polymicrobial infection. **Nature Reviews Microbiology**. 14(2):93-105. PMID: PMC5116812.
- 2014 Murray JL, Connell JL, **Stacy A**, Turner KH, Whiteley M. Mechanisms of synergy in polymicrobial infections. **Journal of Microbiology**. 52(3):188-99. PMID: PMC7090983.
- 2014 **Stacy A**, Everett J, Jorth P, Trivedi U, Rumbaugh KP, Whiteley M. Bacterial fight-and-flight responses enhance virulence in a polymicrobial infection. **Proceedings of the National Academy of Sciences**. 111(21):7819-24. PMID: PMC4040543.
- *Nature* highlight: <http://www.nature.com/nature/journal/v509/n7502/full/509537e.html>
 - *Nature Reviews Microbiology* highlight: <http://www.nature.com/nrmicro/journal/v12/n7/full/nrmicro3294.html>
- 2012 Youle M, Rohwer F, **Stacy A**, Whiteley M, Steel BC, Delalez NJ, Nord AL, Berry RM, Armitage JP, Kamoun S, Hogenhout S, Diggle SP, Gurney J, Pollitt EJG, Boetius A, Cary SC. The Microbial Olympics. **Nature Reviews Microbiology**. 10(8):583-8. PMID: PMC5108295.
- 2012 **Stacy AR**, Diggle SP, Whiteley M. Rules of engagement: defining bacterial communication. **Current Opinion in Microbiology**. 15(2):155-61. PMID: 22185908.

Fellowships & Grants

2021–2025 NIDCR Pathway to Independence Award (**K99DE031372**)

- 2020–2021 NIH Office of Dietary Supplements Research Scholars Program (**\$99,021**)
- 2018–2021 NIGMS Postdoctoral Research Associate Training (PRAT) Program (**F12GM128736**, equivalent to extramural **F32** fellowship)
- 2014–2017 NIDCR Ruth L. Kirschstein Predoctoral Individual National Research Service Award (**F31DE024931**)
- 2008 Summer Undergraduate Research Fellowship (SURF), Washington University in St. Louis

Presentations & Awards

- 2022 Finalist for NOSTER Science Microbiome Prize

Oral Presentations (invited or selected from among submitted abstracts)

- 2022 NIH Lambda Lunch
- 2022 4th International Conference on Porphyromonas gingivalis and Related Species in Oral and Systemic Diseases, Louisville, KY
- 2022 NIDCR Early Career Scientist Seminar Series
- 2022 Office of Dietary Supplements Scholars Symposium
- 2021 NIH/FDA Immunology Interest Group Workshop (virtual)
- 2021 World Microbe Forum (virtual)
- 2021 Harvard Chan Center for the Microbiome in Public Health Symposium (virtual)
- 2020 Gordon Research Seminar on Microbial Toxins and Pathogenicity, Waterville Valley, NH (cancelled due to pandemic)
- 2019 NIAID 13th Annual Fellows Workshop, NIH
- 2019 ASM Microbe, San Francisco, CA
- 2015 Gordon Research Seminar on Microbial Adhesion and Signal Transduction, Newport, RI

Oral Presentation Awards

- 2021 Scholarship, Keystone eSymposium on Harnessing the Microbiome for Disease Prevention and Therapy (virtual)
- 2020 Best Poster (Short Talk) Presentation, NIAID 14th Annual Fellows Workshop, NIH
- 2015 Top Presentation, 3rd International Conference on Model Hosts, Chania, Crete
- 2014 Top Presentation, ASM Conference on Polymicrobial Infections, Washington, DC
- 2014 Best Presentation, International Pasteurellaceae Conference, Prato, Italy
- 2014 Top Presentation, Department of Molecular Biosciences Retreat, UT Austin

Travel Awards

- 2021 Fellows Award for Research Excellence, NIH
- 2020 Peggy Cotter Travel Award, American Society for Microbiology (ASM) DC Branch
- 2019 Fellows Award for Research Excellence, NIH
- 2015 Oliver Memorial Award for Genetic Research, UT Austin
- 2014 A.P. Bradie Endowed Fellowship, UT Austin
- 2014 Graduate Student Professional Development Award, UT Austin

Poster Presentations

- 2022 ASM Microbe, Washington, DC
- 2021 EMBO | EMBL Symposium: New Approaches and Concepts in Microbiology (virtual)

2017–2021 Annual NIH/FDA Immunology Interest Group Workshop, NIH

Leadership & Service

2022 Invited reviewer for manuscripts (mBio, Science Advances, J Oral Microbiol)
2021 Invited reviewer for two manuscripts (mBio, PLOS Pathogens)
2020 Co-organizer, Inaugural Immunology Interest Group Fellows Symposium, NIH (canceled due to pandemic)
2019–2020 Elected member, Immunology Interest Group Steering Committee, NIH
2018–2022 Co-organizer, Microbiome Journal Club (comprises >10 different labs), NIH

Mentoring Experience

2020–2022 Post-baccalaureate mentee (current position: CU Anschutz)
2018–2019 Visiting master's student (current position: UCLA Graduate Program)
2018–2019 Post-baccalaureate mentee (current position: UW-Madison Graduate Program)
2014–2016 Undergraduate mentee (current position: UT Southwestern Medical Center)
2014–2016 Undergraduate mentee (current position: Duke University School of Medicine)

Teaching Experience

2018, 2021 Guest Lecturer (“Microbial Adaptation to the Host”) Cellular Immunology: Principles and Methods (BioTech 4), NIH
2014 Grader for writing-intensive class Bacterial Signaling and Behavior (BIO 339M), UT Austin
2013 Teaching Assistant for laboratory-based class Antibiotics: Discovery and Function (Freshman Research Initiative), UT Austin
2012 Teaching Assistant for lecture-based class Introductory Medical Microbiology & Immunology (BIO 326M), UT Austin

Scientific Training

2020 RIKEN-Tsinghua International Summer Program, Yokohama, Japan (postponed)
2017 Basic Principles of Immunology and Hypersensitivity (IMMU 403), Foundation for Advanced Education in the Sciences, NIH (semester)
2017 LSR II and Fortessa Flow Cytometers training, NIAID Research Technologies Branch, NIH (2 days)
2017 Microbiome Analysis in the Cloud workshop, University of Maryland School of Medicine, Baltimore, MD (2 days)
2014 Microbial Diversity summer course, Marine Biological Laboratory, Woods Hole, MA (6 weeks)

Professional Training

2021 PRAT Symposium on Diversity, Equity, and Scientific Excellence, NIH (1 day)
2021 Teaching in College course, Dr. Barbi Honeycutt, NIH (9 weeks)
2020 Crafting a Competitive K99/R00, K22, or Other Application Writing Program, Grant Writing Mentors, NIH (3 months)
2020 Understanding Your Behavioral Style (DISC workshop), The Nebo Company, PRAT program (1 day)

- 2020 Ethics in Research Training for Postdocs, Office of Intramural Training & Education, NIH (6 hours)
2018 Advanced Leadership Skills workshop, CI International, PRAT program (1 day)
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Outreach

- 2021 NIAID scientist (1 of 4) selected for interview
K-12 STEM Careers Video Blog
2014, 2015 Event Supervisor
Regional Science Olympiad Tournament, UT Austin
2011–2015 Presenter at Kealing Middle School and Boys & Girls Club of Austin
Present Your PhD Thesis to a 12-Year-Old Project, UT Austin
2011 Speaker (“Oral Bacteria: Community Living”)
Texas Science & Engineering Festival, Austin, TX