

## JESSICA ASHLEY (LINDERMAN) ALLEN

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### Current Position

Assistant Professor of Biology, Roosevelt University; Chicago, IL 2020-Present  
Responsible for designing and delivering lectures and laboratories for a variety of undergraduate and graduate biology courses. Conduct research with undergraduates examining the link between genetic differences in damaged protein repair pathways and health during bacterial infection in *Drosophila melanogaster*. Serve as academic advisor for over 30 biology and allied health undergraduates.

### Education

Postdoctoral Fellow, New York University; New York, NY 2012-2016  
Advisors: Ian Mohr, Microbiology and Moses Chao, Molecular Neurobiology

Postdoctoral Fellow, Stanford University; Stanford, CA 2010-2012  
Advisor: David S. Schneider, Microbiology and Immunology Department

Ph.D. in Immunology, Stanford University; Stanford, CA 2004-2010  
Dissertation: Immune Reconstitution After Hematopoietic Cell Transplantation  
Advisor: Judith A. Shizuru, Division of Blood and Marrow Transplantation

B.A. in Biology and Science in Society, Wesleyan University; Middletown, CT  
Bachelor of Arts with Honors 1997-2001  
Thesis Project: The Role of the CD9 Tetraspanin and the  $\alpha 6\beta 1$  Integrin in Cell Migration  
Phi Beta Kappa, Ackart Scholar, Outstanding Chemistry Student

### Awards, Grants, and Fellowships

Equity Teaching Fellow 2021-2022  
Tasked with the creation of equity minded resources for faculty and students within the College of Science, Health, and Pharmacy at Roosevelt University.

Columbia College Student Choice Award for Teaching Excellence 2019

Columbia College Athletics: Favorite Faculty Award 2019

Columbia College Honors Student Association: Outstanding Honors Faculty Member of the Year Award 2019

Student Choice Award for Teaching Excellence Nominee/Finalist 2016-2018

HHMI Faculty Mentoring Network 2017-2018  
Received funding to attend a workshop and develop an Anatomy and Physiology active learning activity complementing an HHMI BioInteractive resources.

Best Microbiology Works in Progress Presentation 2015

NYU Postdoctoral Research Day Travel Award 2014

National Research Service Award (F32) 2014-2015  
NIH Fellowship awarded through the National Institute of Neurological Diseases and Stroke.

Diversifying Academia, Recruiting Excellence (DARE) Fellowship 2008-2010  
Selected for fellowship and faculty-preparation program based on academic record and demonstrated commitment to improving diversity in higher education.

Stanford University School of Medicine, Senior Associate Dean for Graduate Education Award for Exceptional Leadership 2009

Honored by faculty and students for outstanding contributions to graduate education.

Stanford University Biosciences Graduate Education Award 2008

Recognition for innovation and excellence in teaching.

Stanford Graduate Fellowship 2004-2007

Tuition and stipend award for entering doctoral students based on departmental nomination.

### **Past Research**

Assistant Professor of Biology, Columbia College; Columbia, SC 2016-2020

Mentored undergraduates researching what role mutations known to extend survival during infection have on behavior and health throughout the course of infection in *Drosophila*.

Have mentored 11 student projects, 2 of which were funded by \$4,000+ South Carolina Independent Colleges and Universities student research grant.

Life Sciences Research Associate, Stanford University; Stanford, CA 2016

Laboratory of Dr. David Schneider, Microbiology and Immunology Department

Worked on a Defense Advanced Research Projects Agency funded study of disease tolerance using human and murine models to elucidate the pathways of sickness and health.

Postdoctoral Fellow, New York University; New York, NY 2012-2016

Laboratories of Drs. Ian Mohr, Microbiology, and Moses Chao, Molecular Neuroscience

Utilized a purified primary neuronal culture system to study the role of neuron autonomous innate immunity in the establishment and maintenance of latency of herpes simplex virus .

Postdoctoral Fellow, Stanford University; Stanford, CA 2010-2012

Laboratory of Dr. David Schneider, Microbiology and Immunology Department

Used behavioral assays in *Drosophila* to assess fitness during infection and recovery in order to measure tolerance, resistance, and resilience.

Graduate Researcher, Stanford University; Stanford, CA 2005-2010

Laboratory of Dr. Judith Shizuru, Division of Blood and Marrow Transplantation

Studied immune reconstitution after hematopoietic stem cell transplantation with a focus on T cell restriction and antibody production utilizing murine models of transplantation.

Research Technician, Brigham and Womens Hospital; Boston, MA 2002- 2004

Laboratories of Drs. Richard Mitchell and Andrew Lichtman, Division of Immunology

Investigated the immunological mechanisms of graft arterial disease, myocarditis and atherosclerosis using a variety of murine models.

Research Assistant, Harvard Medical School; Brockton, MA 2001-2002

Laboratory of Dr. Robert McCarley, Brain Imaging Laboratory

Conducted clinical research on the biological basis of schizophrenia.

Undergraduate Researcher, Wesleyan University; Middletown, CT 1999-2001

Laboratory of Dr. Laura Gabel, Development Biology

Demonstrated functional significance of integrin-tetraspanin interaction.

**Past Teaching**

Assistant Professor of Biology, Columbia College; Columbia, SC 2016-2020  
 Responsible for 3+ courses per semester, most with laboratories. Develop and run Microbiology, introductory biology for majors, and Anatomy and Physiology I&II (lectures and laboratories), Diseases of the Nervous System, Diversity Gender & Social Justice, and Science Seminar (lecture only) and laboratories for non-majors biology.

Adjunct Instructor - Immunology Lecture and Laboratory and Physiology Laboratory  
 Stern College for Women at Yeshiva University; New York, NY 2014-2016  
 Responsible for the development and all aspects of the honors level immunology lecture and laboratory courses. Co-taught the physiology laboratory course. Senior thesis advisor.

Co-Organizer/Instructor - Fundamentals of Teaching  
 NYU School of Medicine; New York, NY 2014-2016  
 Organized and co-taught a course for graduate students and postdoctoral fellows interested in careers in education focusing on pedagogy and scientific teaching.

Co-Organizer - Scientists Training as Academic Researchers Series  
 NYU School of Medicine; New York, NY 2013-2016  
 Developed a 10-part series for post-doctoral fellows on strategies for transitioning from postdoctoral trainee to academic research professor.

Oral Communication Tutor and Workshop Leader - Center for Teaching and Learning  
 Stanford University; Stanford, CA 2007-2012  
 Developed and ran seminars on public speaking. Worked with undergraduate and graduate students individually on presentation, lecture, and discussion skills.

Course Developer and Director - Professional and Leadership Development  
 Stanford University; Stanford, CA 2007-2010  
 Co-initiated and ran course for graduate students in leadership, communication, management, and interpersonal skills in a combination of lecture and interactive workshop formats.

**Past University and Community Leadership and Service**

Health Science Program Chair, Columbia College; Columbia, SC 2019-2020  
 Advise and recruit students for a new hybrid (online/in-person) bachelor's degree program designed for students with an associate of science degree in an allied health field who are looking to apply to a health professions graduate program.

Fiscal Advisory Committee Member, Columbia College; Columbia, SC 2019-2020

Diversity & Equity Committee Member, Columbia College; Columbia, SC 2016-2020

Math & Science Day Committee, Columbia College; Columbia, SC 2016-2020  
 Develop and implement a one-day program for local high school and middle school students.

Student Ready College Initiative Co-Lead for Science Programs,  
 Columbia College; Columbia, SC 2018  
 Initiative to research and execute a project shown to increase retention. Developed, implemented, and assessed a Course-embedded Undergraduate Research (CUR) project for my introductory biology students, as CURs have been shown to positively impact education and career trajectories. Have continued to adapt the CUR in the course subsequently.

Curriculum Committee Chair, Columbia College; Columbia, SC 2018-2019

Curriculum Committee Secretary, Columbia College; Columbia, SC 2017-2018

Research Experience for Teachers Program Mentor,  
Columbia College; Columbia, SC Summer 2018  
Worked with a local high school teacher to develop and perform a research project in my laboratory, and implement part of that project in their classes the following year.

Postdoctoral Council Member, NYU School of Medicine; New York, NY 2012-2016  
Advocated for postdoctoral fellows and organized career development events.

Officer - Biomedically Affiliated Stanford Students (BioMASS) Graduate Student Council,  
Stanford University; Stanford, CA 2005-2009  
President and financial officer of organization representing all biomedical graduate students.

Student Representative - Committee for Graduate Admissions and Policy (CGAP) and Stanford Immunology Program Board, Stanford University; Stanford, CA 2007-2008  
Student representative on committees to improve graduate education in the biological sciences and develop a more cohesive interdepartmental immunology program.

### Research Publications

1. Lisser MM, Cumnock K, Davis NM, Vilches-Moure JG, Basak P, Navarrete DJ, **Allen JA**, Schneider DS. (2020) Metabolic profiling during malaria reveals the role of the aryl hydrocarbon receptor in regulating kidney injury. *eLife*; 9:e60165.
2. Rath P, **Allen JA**, Schneider DS. (2018) Predicting position along a looping immune response trajectory. *PLoS ONE*; 13(10):e020014.
3. **Linderman JA\***, Kobayashi M\*, Rayannavar V, Fak JJ, Darnell RB, Chao MV, Wilson AC, Mohr I. (2017) Immune escape via a transient gene expression program enables productive replication of a latent pathogen. *Cell Rep*; 18(5):1312-23.
4. Muller AM, Florek M, Kohrt HE, Kupper NJ, Filatenkov A, **Linderman JA**, Hadeiba H, Negrin RS, Shizuru JA (2016) Blood stem cell activity is arrested by Th1-mediated Injury preventing engraftment following non-myeloablative conditioning. *J Immunol*; 197(10):4151-62.
5. Kim JY, Shiflett LA, **Linderman JA**, Mohr I, Wilson AC (2014) Using Homogeneous Primary Neuron Cultures to Study Fundamental Aspects of HSV-1 Latency. *Methods Mol Biol*; 1144:167-79.
6. **Linderman JA**, Chambers MC, Gupta AS, Schneider DS (2012) Infection-Related Declines in Chill Coma Recovery and Negative Geotaxis in *Drosophila melanogaster*. *PLoS ONE* 7(9): e41907.
7. **Linderman JA** and Shizuru JA. (2011) Rapid reconstitution of antibody responses following transplantation of purified allogeneic hematopoietic stem cells. *J Immunol*; 186(7): 4191-9.
8. Müller AM, **Linderman JA**, Florek M, Miklos D, Shizuru JA. (2010) Allogeneic T cells impair engraftment and hematopoiesis after stem cell transplantation. *Proc Natl Acad Sci U S A*; 107(33):14721-6
9. Tsao GJ, **Allen JA**, Longronio K, Shizuru JA. (2009) Purified hematopoietic stem cell allografts reconstitute immunity superior to bone marrow. *Proc Natl Acad Sci U S A*; 106(9):3288-93.
10. Zabel BA, Allen SJ, Kulig, P, **Allen JA**, Handel TM, Butcher EC. (2005). Chemerin activation by serine proteases of the coagulation, fibrinolytic, and inflammatory cascades. *J Biol Chem*; 280(41):34661-6.

11. Gracie N, Hsieh DT, Buono C, Westrich JR, **Allen JA**, Pang H, Stavrakis G, Lichtman AH. (2003). Neutrophils sustain pathogenic CD8(+) T cell responses in the heart. *American Journal of Pathology*; 163(6):2413-20.
12. Rodig N, Ryan T, **Allen JA**, Pang H, Gracie N, Chernova T, Greenfield EA, Liang SC, Sharpe AH, Lichtman AH, Freeman GJ. (2003). Endothelial expression of PD-L1 and PD-L2 down-regulates CD8+ T cell activation and cytolysis. *European Journal of Immunology*; 11:3117-3126.
13. Mulrooney JP, **Allen J**, Bickelhaupt E, Grabel LB. (2002) CD9-  $\alpha 6\beta 1$  interaction in migratory parietal endoderm cells. *Cell Communication and Adhesion*; 9(5): 249-358.

### Research Presentations

1. **Allen JA**. The Role of PIMT and Protein Repair in Sickness and Health. Invited talk at University of South Carolina Upstate Seminar; Aiken, SC: November 2018.
2. **Linderman JA**, Kobayashi M, Chao MV, Wilson AC, Mohr I. Establishment of an interferon-resistant state precedes HSV1 productive replication during reactivation from latency in neurons. Talk presented at the International Herpes Workshop; Boise, ID: July 2015.
3. **Linderman JA**, Kobayashi M, Chao MV, Wilson AC, Mohr I. Interferon blocks herpes simplex virus reactivation by suppressing promiscuous transcriptional activation of latent genomes. Poster presented at the Viral Immunity Keystone Symposium; Breckenridge, CO: January 2015.
4. **Linderman JA**, Shizuru JA. Delayed Reconstitution of Donor-Restricted T<sub>Follicular Helper</sub> Cells After MHC-Disparate Hematopoietic Stem Cell Transplantation. Poster presented at the Midwinter Conference of Immunologists; Alisomar, CA: January 2010.
5. Mueller AMS, Allen JA, Berry KA, Miklos D, Shizuru JA. Graft-versus-host Reactions Target Hematolymphoid Organs Leading to Alteration in Hematopoietic Reconstitution and Dysfunctional Immunity. Poster presented at American Society of Blood and Marrow Transplantation Meeting; Tampa, FL: February 2009.
6. **Allen JA**, Tsao G, Shizuru J. CD4+ T cell Restriction to Donor and Host Elements in MHC-Disparate Allogeneic Chimeras. Poster presented at the Midwinter Conference of Immunologists; Asilomar, CA: January 2009.
7. Mueller AMS, **Allen JA**, Miklos D, Berry K, Shizuru JA. Composition and Persistence of Donor Cell Infiltrates in Host Target Organs Instigate the Development of Chronic Graft-versus-Host Disease. Poster presented at the American Society of Hematology Meeting; San Francisco, CA: December 2008.
8. Mueller AMS, **Allen JA**, Miklos D, Shizuru JA. Comparison of Three Minor- mismatched Mouse Models of Chronic Graft versus Host Disease. Poster presented at the American Society of Hematology Meeting; Atlanta, GA: January, 2008.
9. Mueller AMS, **Allen JA**, Miklos D, Shizuru JA. Donor T Cells from B Cell Deficient Mice Inhibit B Cell Development in Normal Recipients after Hematopoietic Cell Transplantation. Poster presented at the American Society of Hematology Meeting; Atlanta, GA: January, 2008.
10. Mueller AMS, **Allen JA**, Miklos D, Tung JW, Shizuru JA. Impact of Donor T Cells on B Cell Development after Hematopoietic Cell Transplantation: Lessons from B Cell Deficient Mice. Poster presented at American Society of Blood and Marrow Transplantation Meeting; San Diego, CA: February 2008.
11. Mueller AMS, **Allen JA**, Miklos D, Shizuru JA. Graft-Versus-Host Disease: A Minor-Mismatched Mouse Model with Gradual Progression from the Acute into the Chronic

Phase. Poster presented at American Society of Blood and Marrow Transplantation Meeting; San Diego, CA: February 2008.

12. **Allen J**, Mulrooney J, Grabel L.  $\alpha 6\beta 1$  integrin and the tetraspanin CD9 interact and play a role in parietal endoderm migration. Poster presented at the Northeast Regional Meeting of the Society for Developmental Biology; Woods Hole, MA: April, 2001.

#### **Research Presentations by Mentored Students**

1. Azeem M and **Allen J**. The role of PIMT in infectious disease tolerance. Talk presented at the South Carolina Independent Colleges and Universities Symposium; Spartanburg, SC: February 2019.
2. Azeem M and **Allen J**. The role of protein L-isoaspartate O-methyltransferase (PIMT) in infectious disease tolerance. Poster presented at the SC EPSCoR/IDeA State Conference; Columbia, SC: April 2018.
3. Sylve D, Gonzalez C and **Allen J**. The role of protein carboxyl methyltransferase (PCMT) in *Drosophila melanogaster* stress resistance. Poster presented at the South Carolina Academy of the Sciences; Clinton, SC: April 2018.

#### **Teaching Publications and Presentations**

1. **Allen JA**, Landry C, Pickell L and Taylor D (2019) Sex and Sport: Exploring the Practice of Sex Verification of Athletes to Teach Sex Determination and Build Quantitative Reasoning Skills. Workshop at Human Anatomy and Physiology Society Regional Central Meeting; Columbus, OH: October 2019.
2. **Allen JA**, Landry C, Pickell L and Taylor, D (2019) Regulation of Sex Determination. HHMI BioInteractive FMN (2018), QUBES Educational Resources.  
doi:10.25334/Q4TQ7P