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EDUCATION AND RESEARCH EXPERIENCE

Esther Elizabeth Brintzenhoff Associate Professor	**Brown University** Department of Molecular Microbiology and Immunology	2023-present
Associate Professor (with tenure).	**Brown University** Department of Molecular Microbiology and Immunology	2021-2022
Director of Graduate Studies	**Brown University** Pathobiology Graduate Program	2021-present
Assistant Professor	**Brown University** Department of Molecular Microbiology and Immunology	2013-2021
University Assistant	**Max F. Perutz Laboratories Vienna Biocenter at the University of Vienna** Department of Genetics, Microbiology, and Immunology	2008-2013
Post-doctoral researcher	**Yale University School of Medicine** Advisor: Dr. Ruslan Medzhitov *Berger foundation fellow of the Damon Runyon Cancer Research Foundation 2004*	2004-2013
Post-doctoral Associate	**University of California, Berkeley,** Berkeley, CA, USA Department of Molecular and Cell Biology Advisor: Dr. David Raulet	2003-2004
Ph.D.	**University of California, Berkeley,** Berkeley, CA, USA Department of Molecular and Cell Biology Advisor: Dr. David Raulet	1997-2003
B.A.	**Carleton College,** Northfield, MN, USA Department of Biology *summa cum laude*	1993-1997

SCIENTIFIC FOCUS

The overarching focus of my research program is understanding how the immune system can respond to multiple inflammatory insults at the same time. **I am specifically interested in how the lung orchestrates the local, organismal, and systemic responses**. I have also been at the forefront of understanding host tolerance, which is the concept that to survive an infection the host must not only clear the pathogen but withstand changes to homeostasis triggered by both the pathogen and the host response. My laboratory has two main interrelated areas of focus: **1)** Understanding host disease tolerance and the innate immune response to complex respiratory infections and cancer and the role of the microbiota in these processes, and **2)** Understanding how the immune system responds to two competing inflammatory insults or "immune triage". In order to study these topics, I am taking a unique multidisciplinary approach that involves collaborations with pulmonologists, surgeons, bioengineers, and neuroscientists. My lab has developed innovative new models to study the molecular details of viral/bacterial pulmonary coinfections, tissue resilience during pulmonary infection and injury, and innate immune prioritization of lung infections over cutaneous injury. We are specifically interested in understanding the interplay between the immune system, the neural system, and the vasculature. My interdisciplinary approach will shape the field's understanding of the control and regulation of the innate immune response at a systemic level.

HONORS

Esther Elizabeth Brintzenhoff Associate Professor	2023
Class of '97 Distinguished Achievement Award, Carleton College	2022
Dean's Award for Excellence in Undergraduate Teaching, Advising, and Mentoring in the Biological Sciences	2021
Elected to the Office of Women in Science and Medicine Advisory Board	2020
Selected as Faculty Speaker for Brown University Biology Department Graduation *Postponed until 2021 due to COVID-19*	2020
Elected to the Midwinter Conference of Immunologists Council	2020
Selected as Sheridan Center Junior Faculty Teaching Fellow	2019
Elected to the University Resources Committee (Vice Chair 2 years)	2019
Dean's Research Award	2019
Awarded the Society for Leukocyte Biology Women and Diversity Paper of the Year Award	2018
Dean's Research Award	2018
Dean's Research Award	2017
Salomon Research Award	2014

EARLY CAREER AWARDS AND HONORS:

Innate Immunity Keystone Scholarship	2012
Berger foundation fellow of the Damon Runyon Cancer Research Foundation	2004
Society for Natural Immunity travel award	2002
Graduate Division travel award	1998
Cancer Research Laboratory (CRL) Training Grant	1998
National Science Foundation Graduate Research Fellowship Honorable Mention	1998
Phi Beta Kappa Honor Society	1997
summa cum laude Carleton College	1997

PUBLICATIONS

http://www.ncbi.nlm.nih.gov/sites/myncbi/1NWY7ufheuqk9/bibliography/42406667/public/?sort=date&direction=ascending

41 peer-reviewed publications
3 book chapters
6 publications in preparation
Citations = 8013 (Google Scholar August 17, 2022)

In biomedical science, for primary research publications, generally the senior corresponding author is listed last and the lead researcher in the lab, graduate student or postdoc is listed first. In some cases where the lead researcher is also the senior corresponding author they may be listed first. I follow this same format for book chapters and reviews where the graduate student or postdoc has made a significant intellectual contribution to the manuscript.
In addition, since starting my independent research program I have committed to publishing in open access journals and avoided submitting to journals that serve as gatekeepers and make huge profits based on access fees to institutions. This philosophy has been evolving as I educate myself more about the scientific publishing process, but my preferred journals are journals that commit entirely to open access as well journals associated with scientific societies. More information about evaluating research in a new era can be found here. https://sfdora.org/. I am also a member of Solving for Science https://solvingfor.org/.

SCIENTIFIC PUBLICATIONS SINCE STARTING FACULTY POSITION:

**** Denotes corresponding author publication**

Huynh, M., Crane, M.J., and **Jamieson, A.M.** The Lung, the Niche, and the Microbe: Exploring the lung microbiome in cancer and immunity Front Immunol, 17 January 2023
https://doi.org/10.3389/fimmu.2022.1094110

> This was an invited review that summarized the findings in the field of the lung microbiome and cancer. This is related to the current project of a graduate student lab, and this review pointed out the significant gaps in the field, some of which we hope to fill in the upcoming years. My role included conceptual development, analysis, obtaining grant funding, writing and editing the manuscript, and mentoring the graduate student Mai Huynh along with the SRA Meredith Crane..

FitzGerald, E.S **and Jamieson, A.M.****
Comment on "SARS-CoV-2 suppresses anti-coagulant and pro-fribrinolytic gene expression in the lung' 2022 Jan 11 eLife DOI: 10.7554/eLife.74268

> This study was a response to a published paper to correct some incorrect findings and conclusions they reached due to poor quality of data and inappropriate data analysis. It was important finding to correct, as it involved a mechanism of coagulation during SAR-CoV-2 infection. My role included conceptual development, analysis, obtaining grant funding, writing and editing the manuscript, and mentoring the graduate student Ethan Fitzgerald.

Jamieson, A.M.** Probing the early upper respiratory response to SARS-CoV-2 2021 Physiological Reports May; 9(9): e14836. doi: 10.14814/phy2.14836 PMCID: PMC8123558

Invited editorial for Physiological Reports to comment on a paper on the upper respiratory response to SARS-CoV-2.

Crane, M.J., Devine, S., and **Jamieson, A.M.**** Graphene oxide/silver nanoparticle ink formulations rapidly inhibit influenza A virus and OC43 coronavirus infection in vitro
https://www.biorxiv.org/content/10.1101/2021.02.25.432893v1

This work represents a collaboration with the company Graphene Composites. We tested the virucidal properties of several formulations of graphene ink and silver nanoparticles using influenza A virus and coronavirus strains. We found that the graphene oxide/silver nanoparticle materials generated by direct addition of the silver nanospheres were able to completely inhibit plaque formation by both viruses within one minute of exposure. We are now looking to test the ability of this formulation to inhibit viral growth (OC43 CoV-2, influenza A virus, and SARS-CoV-2 when used as a coating for various substances including PPE and air filters. (*It is currently in revision at ACS Infectious Diseases*)

FitzGerald, E.S., Chen, Y., Fitzgerald, K.A., and **Jamieson, A.M.**** Lung Epithelial Cell Transcriptional Regulation as a Factor in COVID-19 Associated Coagulopathies. 2021 Jun;64(6):687-697. doi: 10.1165/rcmb.2020-0453OC.

This is an exciting new study carried out with my graduate student Ethan FitzGerald. A core pathology that has emerged in people with COVID-19 is that they have defects in coagulation. In this manuscript we analyzed publicly available transcriptional datasets to determine a role for the lung epithelium in causing this pathology. We found that there were clear transcriptional changes in the extrinsic coagulation pathway in epithelial cells from SARS-CoV-2 patients and also lung epithelial cells infected *in vitro*. This was specific for SARS-CoV-2 as epithelial cells infected with other respiratory viruses did not display the same defect. We also used bioinformatics pipelines to select potential small molecule drugs to target the epithelium and potentially treat coagulopathy. This research fits squarely in the theme of the lab, which is that the lung is a master regulator of host processes throughout the body. My role included conceptual development, experimental design, data visualization and analysis, obtaining grant funding, writing and editing the manuscript, and mentoring the graduate student Ethan Fitzgerald.

Highlighted with an Editorial in the same edition of the journal: Hernandez Cordero, A.I. and Sin D.S. Clotting in COVID-19: Is It All in the Genes? 2021 Jun;64(6):647-649. doi: 10.1165/rcmb.2021-0134ED.

Highlighted with a red alert, highlighted papers by junior investigators https://www.atsjournals.org/doi/abs/10.1165/rcmb.646RedAlert

Crane, M.J., Xu, Y., Monaghan, S.F., Hall, B.M., Albina, J.E. Henry, W.L. Jr., Tran, H.L., Chhabria, K.R.P., Jordon, A.R.D., Carlsen, L., **Jamieson, A.M.**** Pulmonary infection interrupts acute cutaneous wound healing through disruption of chemokine signals. 2020 May 20. https://www.biorxiv.org/content/10.1101/2020.05.08.084442v1

This study represents a new clinical finding, that pneumonia suppresses cutaneous wound healing, and investigates the cellular details in novel animal models. The immune system is essential for many processes in the human body, including clearing infections, development, response to cancer, and wound healing. Therefore, a fundamental question in immunology that has broad implications in medicine, is how the immune system is poised to respond simultaneously to more than one insult, and how the response is altered in this setting. Using these novel models, we found that bacterial pneumonia suppressed the early inflammatory stages of cutaneous wound healing, resulting in a rapid decrease in chemokine levels in the wound and altering the development and trafficking of immune

cells throughout the body. Remarkably, we were able to restore the ability to heal a wound in mice with pneumonia through redirection of the innate immune response back to the wound with chemokine treatments. These data are broadly applicable to a variety of dual insult models involving the innate immune response, such as the interplay between the immune responses to cancer and infection. This study lays the groundwork for a new and exciting direction on the impact of infection on the global innate immune response. My role included conceptual development, obtaining grant funding, experimental design, data visualization and analysis, writing and editing the manuscript, and mentoring a post-doctoral investigator Meredith Crane, a Ph.D.student Yun Xu, and research assistants William Henry Jr. and Holly Tran who collectively acquired most of the data. Graduate students Alex Jordon and Lindsey Carlsen also assisted with key experiments. The analysis was primarily done by Drs. Crane and myself. I also coordinated with Drs. Monaghan and Hall to obtain and analyze the clinical data. *This manuscript is in revision at the Journal of Clinical Investigation.*

Serpa G.L., Renton, N.D., Lee, N., Crane, M.J., **Jamieson A.M.**** Electronic Nicotine Delivery System Aerosol-induced Cell Death and Dysfunction in Macrophages and Lung Epithelial Cells. American Journal of Respiratory Cell and Molecular Biology 2020 Sep 1. doi:10.1165/rcmb.2019-0200OC. PMCID: PMC7462344

Highlighted with an Editorial in the same edition of the journal: Knapp, S., Vaping: Cell Damage at the Receiving ENDS. 2020 Sep;63(3):271-272. DOI: 10.1165/rcmb.2020-0244ED PMCID: PMC7462343

Red In Motion ATS generated a video describing the findings of the paper:
https://www.youtube.com/watch?v=QF_S3fQM8hI&feature=youtu.be

In this study, we demonstrate that exposure to electronic nicotine delivery systems (ENDS) aerosols causes cell death and dysfunction in macrophages and lung epithelial cells. There is currently an epidemic of disease caused by ENDS aerosols, but very little is known about their influence on the immune response. We developed novel models and exposure systems to study this, including human bronchial epithelial cells grown at the air liquid interface (ALI) that were repeatedly exposed to ENDS aerosols. In addition, we looked at the toxicity and functionality of macrophages after acute exposure to ENDS aerosols. We found that macrophages underwent Caspase-1-induced inflammatory cell death, and even when exposed to a non-lethal dose had reduced anti-microbial function. Our current work is examining these changes in in vivo models and determining additional mechanisms of action. My role included conceptual development, experimental design, data visualization and analysis, obtaining grant funding, writing and editing the manuscript, and mentoring a Ph.D. student Gregory Serpa, who conducted the majority of the experiments. He was assisted by two undergraduates Nick Renton and Nari Lee as well as Dr. Crane with some of the early experiments.

FitzGerald, E., Farias-Luz, N., **Jamieson, A.M.**** Competitive Cell Death Interactions in Pulmonary Infection: Host Modulation Versus Pathogen Manipulation. Frontiers in Immunology 2020 May 19. doi.org/10.3389/fimmu.2020.00814 PMCID: PMC7248393 (Invited Review)

This review provides a current overview of the latest research on programmed cell death responses triggered by common pulmonary pathogens. It summarizes findings for each bacterium and also delineates different strategies that the bacteria take to manipulate host cell death responses. Much of it is framed in the context of stark differences in induction or suppression of regulated cell death between different pathogens. My role included conceptual development, obtaining grant funding, analysis and synthesis of recent literature in the field, writing and editing the manuscript, and mentoring post-doctoral associate Nivea Farias Luz and graduate student Ethan FitzGerald to collaboratively research and write the review.

Crane, M.J, Henry, W.L., Tran, H.L., Albina, J.E. **Jamieson, A.M. **** Assessment of Acute Wound Healing using the Dorsal subcutaneous Polyvinyl Alcohol Sponge Implantation and Excisional Tail Skin Wound Models. J Vis Exp. 2020 Mar 25. doi:10.3791/60653. PMCID: PMC7281859

With this manuscript we delineated the methods for two mouse models of wound healing that we use in the lab. The polyvinyl alcohol (PVA) sponge model allows us to isolate immune cells infiltrating into the wound without the need for enzymatic digestion. It also allows us to examine levels of chemokines, cytokines, growth factors, and other soluble factors in the wound fluid. The excisional tail wound model allows us to examine the rate of wound re-epithelialization, which is primarily how human wounds heal. The work was primarily done by the research assistant William Henry Jr. and postdoctoral investigator Dr. Crane.

Lee, K.M., Cohen, K.T., Wilson, Z.S., Zhao, R., Lomas-Neira, J., Chung, C-S., Chen, Y., **Jamieson. A.M.,** Ayala, A., Lefort, C.T. Hemorrhage attenuates neutrophil recruitment response to secondary respiratory infection by Pseudomonas aeruginosa. Shock 2019 October 31. doi:10.1097/SHK.0000000000001288 PMCID: PMC6527504

This collaborative work reveals that after hemorrhagic shock there is a decrease in neutrophils entering into the airway space when challenged with a bacterial infection. This is an interesting mechanism behind the pulmonary infections that patients are susceptible to after undergoing shock. I was contacted by the last author, Dr. Lefort, to assist in some of the pulmonary experiments, given our expertise. My role included mentoring the first author, Kayla Lee on techniques, obtaining grant funding, and the use of equipment in our laboratory. I also assisted in editing the manuscript.

Lee, K.M., Morris-Love, J., Cabral, D., Opal, S.M. Belenky, P., **Jamieson A.M.**** Coinfection with Influenza A Virus and *Klebsiella oxytoca*: An underrecognized impact on host tolerance to pulmonary infections. Frontiers in Immunology 2018 October 28. doi:10.3389/fimmu.2018.02377 PMCID PMC6217722

This manuscript is the first description of *Klebsiella oxytoca* as a potential complication following respiratory viral infection. We discovered this bacterium as a naturally occurring pathobiont in our mouse facility that increased susceptibility to influenza A virus (IAV) infection. We then looked at the prevalence in clinical samples from patients that we obtained from Dr. Opal and found that it was more common in people that had IAV infection than uninfected controls. It was about as common as *Streptococcus pneumoniae*, which is more widely recognized as a risk factor for increased morbidity and mortality after IAV infection. To study this in a tractable animal system we developed a mouse model of IAV/*K. oxytoca* coinfection. We found that both resistance and tolerance were compromised during coinfection. In particular, there were striking shifts in the development of macrophages in the lung, and inflammatory cytokines and chemokines. This demonstrates that the influence of a secondary infection following IAV is dependent on the type of bacterial pathogen. My role included conceptual development, experimental design, data visualization and analysis, obtaining grant funding, writing and editing the manuscript, and mentoring a Ph.D. student Kayla Lee, who conducted the majority of the experiments. She was assisted by a rotation student Jenna Morris-Love. We also collaborated with Damien Cabral in Peter Belenky's lab to sequence the strain of *K. oxytoca* that we isolated.

Crane, M.J.†, Xu Y.† Henry, W.L. Jr., Gillis, S.P., Albina, J.E., **Jamieson A.M.**** Pulmonary influenza A virus infection leads to suppression of the dermal wound healing response. PLoS Pathogens 2018 Aug 23. doi: 10.1371/journal.ppat.1007212 PMCID PMC6107272.

This was the highlighted publication in Brown Biomedicine KUDOS for August 2018 Edition.
It was also a PLoS Pathogens highlighted article.

This study described for the first time that viral lung infection, in this case influenza A virus (IAV), impacts cutaneous wound healing. The project started off as a collaboration between Dr. Albina's lab and my lab, funded by the DEANS award. We were initially interested in it because lung infections are a common complication in hospitalized patients, and we found that the degree of trauma increases the susceptibility to pneumonia. Therefore, we wanted to combine the Albina lab's mouse wound models with the lung infection models of the Jamieson lab. Surprisingly we found that there were only mild impacts of wounding on the lung, however the lung infection dramatically suppressed wound healing in the skin. There was a decrease in immune cell infiltrate into the wound and decreased wound healing time. The mechanisms behind this innate immune triage are currently a major research interest of the lab, and the subject of a manuscript on bioRxiv that is currently in revision. My role included conceptual development, obtaining grant funding, experimental design, data visualization and analysis, conducting experiments writing and editing the manuscript, and mentoring a Ph.D. student Yun Xu and post-doctoral investigator Meredith Crane who conducted the majority of the experiments.

Crane M.J. Lee, K.M., Fitzgerald, E. and **Jamieson A.M.**** Surviving deadly lung infections: Innate Host tolerance mechanisms in the pulmonary system. Frontiers in Immunology 2018 Jun 22. doi.org/10.3389/fimmu.2018.01421 PMCID PMC6024012 (Invited review)

This review provides a current overview of the latest research on host tolerance mechanisms to pulmonary infections. We explored this topic both the stance of the innate immune response, but also the role of the microbiome and the epithelium. Given our standing in our field we were invited by the editors Irah King and Maziar Divangahi to contribute a review on this topic. My role included conceptual development, analysis and synthesis of recent literature in the field, writing and editing the manuscript, and mentoring post-doctoral associate Dr. Meredith Crane and graduate students Ethan FitzGerald and Kayla Lee to collaboratively research and write the review.

Gamradt, P., Xu, Y., Gratz, N., Duncan, K., Kobzik, L., Högler, S., Decker, T., Kovarik, P and **Jamieson, A.M.**** The influence of programmed cell death in myeloid cells on host resilience to infection with *Legionella pneumophila* or *Streptococcus pyogenes*. PloS Pathogens 2016 Dec 14. doi.org/10.1371/journal.ppat.1006032 PMCID PMC5156374

The highlighted publication in Brown Biomedicine KUDOS for December 2016 Edition.

This work uses novel mouse model that I developed that overexpresses the anti-apoptotic model bcl-2 in cells of the myeloid lineage. We found that programmed cell death plays a complicated role in clearance of infections. Generally apoptotic cell death is an important aspect of host disease tolerance, as mice with decreased apoptosis in the macrophage compartment have decreased host disease tolerance. This work spurred a main research focus of my current laboratory, and we have now expanded to include other modalities of cell death including necroptosis and pyroptosis. My role included conceptual development, development of the experimental models, obtaining grant funding, experimental design, data visualization and analysis, writing and editing the manuscript, and mentoring a master's student Pia Gamradt and Ph.D. student Yun Xu. They were assisted by a rotation student Kellyanne Duncan during the revision period. We received assistance from Nina Gratz in the Kovarik and Decker labs on the *S. pyogenes* model. Drs. Kobzik and Högler performed analysis of the histology.

Jamieson, A.M.** Host Resilience to Emerging Coronaviruses. Future Virology 2016 July 1. doi.org/10.2217/fvl-2016-0060 PMCID: PMC7079962 (Invited review)

I was invited to write a review given my expertise in host tolerance and tissue resilience to pulmonary infections. After having taught Virology for several years, I became very concerned about the pandemic potential for the zoonotic emerging coronaviruses, SARS (2003) and MERS (2012). Given the pathogenicity of these viruses understanding host tolerance or resilience to the infection seemed

to be a very interesting and understudied area. Give the current pandemic this article is very timely and is something we are revisiting in our current work. My role included conceptual development, analysis and synthesis of recent literature in the field, writing and editing the manuscript.

Clarke, S.E. Filak, H.C., Guthrie, H.C., Schmidt, R.L., Clark, S.E., McDermott, D., Merkel, P., **Jamieson, A.M.,** Knight, V., Cole, C.M., Raulet, D.H., Lenz, L.L. Bacterial Manipulation of NK Cell Regulatory Activity Increases Susceptibility to *Listeria monocytogenes* Infection. Plos Pathogens 2016 June 13. doi.org/10.1371/journal.ppat.1005708 PMCID: PMC4905663

This collaborative work reveals that Natural Killer cells increase susceptibility to infection with *L. monocytogenes*. I performed some of the initial experiments that demonstrated depletion of NK cells altered the immune response to Listeria and the bacterial burden. It demonstrates that NK cells produce IL-10 as their IFN-g response wanes. This in turn has regulatory functions on myeloid cells, which can increase susceptibility to *Listeria monocytogenes*.

Castiglia, V., Piersigilli, A., Ebner, E., Janos, M., Goldmann, O., Damböck, U., Kröger, A., Weiss, S., Knapp, S., **Jamieson A.M.,** Kirschning, C., Kalink, U., Strobl, B., Müller, M., Stoiber, D., Lienenklaus, S., Kovarik, P. Type I Interferon Signaling Prevents Lethal Systemic Il-1 Signaling-Driven Hyperinflammation during Invasive Bacterial Infection of Soft Tissue. Cell Host and Microbe 2016 Mar 9. doi: 10.1016/j.chom.2016.02.003 PMID 26962946

This collaborative work demonstrated the regulatory roles of type I IFNs during infection with *S. pyogenes*. It controlled IL-1 signaling to prevent hyperinflammation and increase host tolerance to infection. My role included assistance with techniques, obtaining grant funding, data visualization and analysis, and editing the manuscript.

Jamieson, A.M.** Influence of the microbiome on response to vaccination. Human Vaccines and Immunotherapeutics 2015 September 11. doi: 10.1080/21645515.2015.1022699 PMCID: PMC4635895 (Invited perspective)

I was invited to write this perspective after speaking at the Vaccine Renaissance Conference. It explores the potential roles that the microbiome may play in the variable responses to vaccination. My role included conceptual development, analysis and synthesis of recent literature in the field, writing and editing the manuscript.

Paolino, M., Choidas, A., Wallner, S., Pranjic, B., Uribesalgo I., Loeser, S., **Jamieson, A.M.**, Langdon, W.Y., Ikeda, F., Fededa, F.P., Cronin, S.J., Nitsch, R., Schultz-Fademrecht, C., Eickhoff, J., Menninger, S., Unger, A., Torka, R., Gruber, T., Hinterleitner, R., Baier, G., Wolf, D., Ullrich, A., Klebl, B.M., Penninger, J.M. The E3 Ligase Cbl-b and TAM receptors regulate cancer metastasis by inhibiting via natural killer cells. Nature. 2014 Mar 27. doi: 10.1038/nature12998 PMCID: PMC6258903

This collaborative work focused on the role that E3 ligase Cbl-b and TAM receptors play in regulating cancer metastasis. This regulation is done through their inhibition of Natural Killer (NK) cells. I was asked to assist the lead author in a neighboring institution with experimental advice and techniques due to my expertise in NK cells from my work as a Ph.D. student. We met several times a month to discuss results, and I helped her with key experiments.

Wienerroither S, Rauch I, Rosebrock F, **Jamieson A.M.**, Bradner J, Muhar M, Zuber J, Müller M, Decker T. Regulation of NO Synthesis, Local Inflammation, and Innate Immunity to Pathogens by BET Family Proteins. Mol Cell Biol 2014 January 7. doi: 10.1128/MCB.01353-13 PMCID: PMC3911514

This collaborative work examined the role that nitric oxide synthesis plays in host tolerance and resistance to pathogens. In particular epigenetic regulation of NO synthesis by BET Family proteins. My role included assistance with techniques, obtaining grant funding, data visualization and analysis, and editing the manuscript.

Putz E.M, Gotthardt D., Hoermann G., Csiszar A., Wirth S., Berger A., Straka E., Rigler D., Wallner B., **Jamieson A.M.**, Pickl W.F., Zebedin-Brandl E.M., Müller M., Decker T., Sexl V. CDK8-Mediated STAT1-S727 Phosphorylation Restrains NK Cell Cytotoxicity and Tumor Surveillance. Cell Rep. 2013 Aug 15. doi: 10.1016/j.celrep.2013.07.012 PMCID: PMC3748339

This collaborative work demonstrated the role that regulation of STAT1 in an NK cells specific manner plays in the response to tumors. I was asked to assist the lead author with experimental advice and techniques due to my expertise in NK cells from my work as a Ph.D. student. My role included assistance with techniques, data visualization and analysis, obtaining grant funding and editing the manuscript.

Jamieson. A.M.**, Pasman, L., Yu, S., Gamradt, P., Homer, R.J., Decker, T., Medzhitov, R.M. Role of Tissue Protection in Lethal Respiratory Viral-Bacterial Coinfection. Science 2013 Jul 7. doi: 10.1126/science.1233632 PMCID: PMC3933032

This groundbreaking paper demonstrated the role that host disease tolerance, specifically tissue resilience plays in surviving complex pulmonary coinfections. I developed a model of coinfection where there was no change in bacterial or viral burden, however there was a decrease in survival. This allowed us to focus on host responses that were compromised during coinfection. I discovered that not only was host disease tolerance compromised by an excess inflammatory response during coinfection, but there was also a decrease in tissue repair pathways. By focusing on both the inflammatory response and tissue protection the host could be rescued from the lethal infection. This concept of host disease tolerance during respiratory infection continues to drive various aspects of my research program. My role included conceptual development, experimental design, data acquisition, data visualization, data analysis, obtaining grant funding, writing and editing the manuscript. In addition, I mentored a master's student Pia Gamradt in techniques necessary to work on the project.

BOOK CHAPTERS:

Jamieson, A.M., Farlik, M., and Decker, T. How Stats interact with the molecular machinery of transcriptional activation. Jak-Stat Signaling: From Basics to Disease 2012, pp 65-89.

Lee, K.M., Morris-Love, J., Cabral, D., Opal, S.M. Belenky, P., **Jamieson A.M.**** Secondary Respiratory Infections in the Context of Acute and Chronic Pulmonary Diseases Frontiers e-book January 2020 eds. Frances Trottein and John F. Alcorn

Crane M.J. Lee, K.M., Fitzgerald, E. and **Jamieson A.M.**** Evolving Mechanisms of Disease Tolerance Frontiers media 2020 eds. Maziar Divangahi, Irah L King

FitzGerald, E., Farias-Luz, N., **Jamieson, A.M.**** Outsmarting the Host: How Bacterial Pathogens Modulate Immune Responses in the Lung Frontiers media 2021 eds. Michael T. Borchers, Gee W. Lau and Charles S. Dela Cruz

MANUSCRIPTS UNDER REVIEW OR IN PREPARATION:

Huynh, M. and **Jamieson A.M.**** The overlap of microbial changes to different mucosal tumor microenvironments.

Crane, M.J, McKinney, R., Eberson, C., and **Jamieson, A.M.**** Chemokine and cellular dynamics in a healing human wound.

FitzGerald, E.S., Crane, M.J. and **Jamieson, A.M.**** Epithelial-derived tissue factoring containing extracellular vesicles in COVID-19 patients as a mechanism of systemic coagulation defects.

FitzGerald, E.S. and **Jamieson, A.M.**** Triple-RNA-Seq reveals adaptation of *Streptococcus pneumoniae* to influenza A virus- infected human bronchial epithelial cells.

Farias-Luz N. and **Jamieson, A.M.**** The influence of Caspase-8 in macrophages on resistance and tolerance to influenza A virus and *Streptococcus pneumoniae* coinfection

Crane, M.J., Xu, Y., Monaghan, S.F., Hall, B.M., Albina, J.E. Henry, W.L. Jr., Tran, H.L., Chhabria, K.R.P., Carlsen, L., **Jamieson, A.M.**** IL-1 as a key regulator of cutaneous wound healing during pulmonary infections.

Serpa G.L. and **Jamieson A.M.**** The primary exposure route of ENDS aerosols in rodent whole body exposure models is through inhalation.

PUBLICATIONS PRIOR TO FACULTY POSITION:

Kernbauer E, Maier V, Stoiber D, Strobl B, Schneckenleithner C, Sexl V, Reichart U, Reizis B, Kalinke U, **Jamieson A,** Müller M, Decker T. Conditional Stat1 ablation reveals the importance of interferon signaling for immunity to Listeria monocytogenes infection. PLoS Pathog. 2012 Jun 14. doi: 10.1371/journal.ppat.1002763 PMCID: PMC3375314

Aubry C, Corr SC, Wienerroither S, Goulard C, Jones R, **Jamieson A.M.**, Decker T, O'Neill LA, Dussurget O, Cossart P. Both TLR2 and TRIF Contribute to Interferon-g Production during Listeria Infection. PLoS One. 2012 Mar 14. doi: 10.1371/journal.pone.0033299 PMCID: PMC3303824

Farlik M, Rapp B, Marie I, Levy DE, **Jamieson A.M.,** Decker T. Contribution of a TANK-binding kinase 1-interferon (IFN) regulatory factor 7 pathway to IFN-g induced gene expression. Mol Cell Biol. 2012 Jan 17. doi: 10.1128/MCB.06021-11 PMCID: PMC3295005

Jamieson. A.M., Yu, S., Anicelli, C.H., Medzhitov, R.M. Influenza virus-induced glucocorticoids compromise innate host defense against a secondary bacterial infection. Cell Host Microbe 2010 Feb 18. doi: 10.1016/j.chom.2010.01.010 PMCID: PMC2836270

Nogueira, C.V., Lindsten, T., **Jamieson, A.M**., Case, C.L., Shin, S, Medzhitov, R., Thompson, C.B., Roy, C.R. Rapid pathogen-induced apoptosis: a mechanism used by dendritic cells to limit intracellular replication *of Legionella pneumophila*. PLoS Pathog. 2009 Jun 5 doi: 10.1371/journal.ppat.1000478 PMCID: PMC2689937

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GRANTS and FELLOWSHIPS

CURRENT FUNDING:

2R25GM125500-06 Aizenman PI, Campbell, MPI Jamieson, MPI 2023-28
Funding Source: NIH/NIGMS
Brown University Postbaccalaureate Research Education Progam

This grant supports the education of future PhD level scientists to promote diversity in the scientific workforce.

R01HL165259-01A1 Jamieson, PI 2023-27
Funding Source: NIH/NHLBI/NIGMS ($3,059,179)
Central role of Caspase-8 in control of host tolerance and resistance mechanisms in pulmonary macrophage populations during severe respiratory infections

This grant uses genetic mouse models and in vitro experiments to determine how Caspase-8 controls the balance between host resistance and tolerance to influenza A virus/bacterial coinfections.

Rhode Island Foundation Grant Resubmission Grant Jamieson, PI 2023-24
Funding Source: RIF ($25,000)
Targeting Caspase-8 as a potential therapeutic for complex lung infections

To develop nanocarrier technology that directly targets macrophages to demonstrate the role that this targeting has for a potential therapeutic benefits.

Seed Award Jamieson, PI (co-PI Abbasi) 2023-24
Funding Source: Brown University ($100,000)
Causes of dangerous short-term and long-term coagulation issues with SARS-CoV-2 and other potential pandemic respiratory virus infections

This project is a collaboration with a PI at RIH. We will obtain plasma from patients with SARS-CoV-2 and other respiratory infections to look at tissue factor on circulating extracellular vesicles.

Center for Antimicrobial Resistance and Therapeutic Discovery Pilot Project Jamieson, PI 2022-23
Funding source: CARTD, Miriam Hospital ($75,000)
Acquisition of anti-microbial tolerance caused by lung infection-induced hypoxia

The goal of the project is to understand how infection with respiratory viruses can lead to antimicrobial tolerance in pathogenic and commensal bacteria

NHLBI R01HL126887 Jamieson (PI) 2018-23
Funding source: NIH/NHLBI ($2,604,600)
Influence of the lung microbiome on macrophage responses to lung damage

The goal of the project is to understand how macrophages are influenced in response to bacterial pathogens, and pathobionts to respond to lung damage.

PAST FUNDING:

Carney Institute Innovation Awards Jamieson, PI 2020-22
Funding source: Carney Institute for Brain Science, Brown University ($132,000)
Neural control of Innate Immune Prioritization

The goal of the project is to understand the role of the vasculature and neural system in the control of the innate immune response.

NHLBI 3R01HL126887-05S1 Jamieson (PI) 2022-2023
Funding source: NIH/NHLBI ($247,664)
Research Supplement to Promote Diversity in Health-Related Research

The goal of the project is to understand the role of the lung microbiome and cancer (turned down to alternative funding found)

NHLBI 3R01HL126887-02S1 Jamieson (PI) 2020-22
Funding source: NIH/NHLBI ($247,664)
Research Supplement to Promote Diversity in Health-Related Research

The goal of the project is to understand the role of innate lymphocyte cells, including NK cells, in the response to tissue damage.

Innovation Voucher Jamieson (PI) 2021-22
Funding Source: Rhode Island Department of Commerce ($50,000)

Testing the Virucidal Activity of Graphene Composite Ink on Filters to Make Building Ventilation Systems Safer.

The goal of the project is to test several the effectiveness of virucidal substances for use building ventilation systems.

FAST Grants Award #2227 Jamieson (PI) 2021-22
Funding Source: Emergent Ventures Mercatus Center, George Mason University ($100,000)
Understanding "Long-COVID"

The goal of the project is to understand how long-term consequences of COVID-19 are related to host tolerance responses.

FAST Grants Award #2170 Jamieson (PI) 2020-21
Funding Source: Emergent Ventures Mercatus Center, George Mason University ($300,000)
Treating COVID-19: From host tolerance to anti-viral strategies

The goal of the project is to understand host tolerance responses that could be used for potential treatments of COVID-19 patients.

COVID-19 Seed Award Jamieson (PI) 2020-21
Funding Source: Brown University ($40,000)
Determining immunity at a population level in Rhode Island to the novel coronavirus SARS-CoV2

The goal of the project is to understand the infection rate of subsets of the Rhode Island population with SARS-CoV-2, and the changing dynamic of this as the population changes.

COVID-19 Seed Award Jamieson (PI) 2020-21
Funding Source: Brown University ($15,000)
GC-coronavirus-killing ink: testing

The goal of the project is to test several the effectiveness of virucidal substances for use on PPE and other surfaces.

NIGMS P20GM109035 Jamieson Jr. Investigator, PI Rand 2016-21
Funding Source NIH/NIGMS ($1,287,295) *Graduated 2019*
COBRE Center for Computational Biology of Human Disease Project 3:Tolerance of Viral/bacterial co-infections

This grant forms a bioinformatics core that will be set up to study human diseases. Subproject is to examine bioinformatically causes of decreased tolerance to lung coinfections. Although since obtaining an R01 we have graduated from the funding, and it is now supporting a new Jr. Investigator, we continue to be supported by the bioinformatics core, and the project is ongoing because of this support.

Brown University Seed Award Jamieson (Co-PI) 2019-20
With Co-PI Dr. Anita Shukla, Brown Engineering ($75,000)
Enhancing Wound Healing Using Hydrogels for Localized Chemokine and Cytokine Delivery

The goal of this project was to develop novel biocompatible hydrogels to deliver chemokines and cytokines to wound beds, to promote wound healing when it is compromised by a suppressed immune response.

DARPA Director's Award Jamieson (PI) 2017-19
Funding source: Defense Advanced Research Project Agency (DARPA) ($250,000)
Influence of pulmonary infections on the wound healing response.

The goal of this funding was to determine how mechanisms of dermal wound healing are influenced by lung infection. This is major focus of the lab, in particular understanding at a molecular detail how the immune system prioritizes responses, and what can be done to influence the prioritization. We have several manuscripts on this topic

RI-INBRE Early Career Award Jamieson (PI) 2015-17
Funding source: NIGMS ($125,000)
The impact of e-cigarette vapor on the pulmonary stress response

The goal of this funding was to establish systems of e-cigarette exposure, so we could begin to understand the impact that it has on pulmonary cells. We have now established *in vivo* and *in vitro* models, and published on it.

Initial AIDS Research Project Jamieson (PI) 2015-16 Funding source: for Aids Research (CFAR) ($40,000)
Tolerance of HIV-Related Immune Reconstitution Inflammatory Syndrome

The goal of this funding was to determine if tolerance could be applied to Immune Reconstitution Inflammatory Syndrome (IRIS). This work is ongoing.

Medical Research Funds Jamieson (PI) 2015-16
Funding source: Rhode Island Foundation ($15,000)
Influence of the airway microbiome on response to pulmonary infection

The goal of this funding was to establish techniques for studying the lung microbiome. This forms the basis of my R01, and understanding pathobionts and viral lung infections is a current active area of interest.

DARPA Young Faculty Award Jamieson (PI) 2015-17
Funding source: Defense Advanced Research Project Agency (DARPA) ($500,000)
Influence of the airway microbiome on the tolerance response to pulmonary infections.

The goal of this funding was to investigate how specific bacteria in the airway influences host disease tolerate responses to viral lung infections. This forms the basis of my R01, and numerous publications looking at the interaction of specific bacteria with viruses in *in vitro* and *in vivo* models.

Brazil Initiative Collaboration Award Jamieson, de Graffenried, Zamboni (Co-PIs) 2014-16
Funding Source: Watson Institute ($118,000)
The Effect of Cellular Morphology of Endemic Brazilian Leishmania species on Host Immune Response and Disease Progression

The goal of this funding was to form a collaboration with Brazilian researchers to understand from a cellular and immunological level Leishmania pathogenesis. This collaboration is ongoing.

Dean's Emerging Areas of New Science Awards (DEANS) Jamieson and Albina (co-PIs) 2014-15 Funding Source: Brown University ($80,000)
Post-surgical pneumonia and development of wound repair macrophages

The goal of this funding was to understand how post-surgical pneumonia impacted wound repair macrophages. This led to the surprising result of suppressed overall wound healing in mice that contracted lung infections. We have investigated this in molecular, cellular, and mechanistic detail for many years. It has allowed us to establish the concept of innate immune triage.

Pilot Grant from 5P20GM103652 Jamieson (PI) 2014-15
Funding source: NIH/NIGMS Ocean State Research Institute (OSRI) CardioPulmonary Vascular Biology (CPVB) COBRE ($65,000)
Impact of influenza virus/L. pneumophila coinfection on lung endothelial cells

The goal of this funding was to start a project to incorporate how endothelial cells interact with immune cells and the lung epithelium during pulmonary infection. We are currently using the models developed with this grant in our research.

Salomon Research Award Jamieson (PI) 2014-15
Funding Source: Brown University ($15,000)
U*nderstanding the interaction of the airway microbiome with pulmonary diseases*

The goal of this funding was to establish techniques for studying the lung microbiome. This forms the basis of my R01, and understanding pathobionts and viral lung infections is a current active area of interest.

FWF Grant P25235-B13 Jamieson (PI) 2012-14
Funding Source: Austrian Science Fund (FWF)
Tolerance to viral/bacterial coinfections

The goal of this funding was to study tolerance mechanisms to viral/bacterial coinfections. This grant was instrumental in giving me the ability to perform key experiments for my 2013 Science publication.

FWF Grant SFB-F28 Jamieson and Decker (co-PIs) 2009-13
Funding Source: Austrian Science Fund (FWF)
JAK-STAT signaling in health and disease

This was a large multi-PI grant that was a part of, with the goal of developing models to study JAK/STAT signaling

Berger Fellow of the Damon Runyon Cancer Research Foundation Jamieson (PI) 2004-2008
Funding Source: Berger Foundation and Damon Runyon Cancer Research Foundation

PATENTS
U.S. Patent Application No.: 16/868,388
Title: COMPOSITIONS AND METHODS TO ENHANCE CUTANEOUS WOUND HEALING
Filing Date: May 6, 2020

Applicant: BROWN UNIVERSITY
Inventors: Amanda M. JAMIESON, Meredith CRANE, Yun XU
TECH ID 2603
Our Ref.: 405505-577001US

MENTEE FUNDING:

Undergraduate Teaching and Research Fellowship to Kieran Pandry	2023
Undergraduate Teaching and Research Fellowship to Tessa Devoe	2023
Undergraduate Teaching and Research Fellowship to Michael Kuharski	2023
Undergraduate Teaching and Research Fellowship to Kayleen Vicente	2022
Catherine (Mai) Huynh 5T32ES007272-27 *Training in Environmental Pathology*	2022-2023
Presidential Fellow from Brown University to Catherine (Mai) Huynh	2020-
Travel Award to AAI for Post-doctoral Investigator Dr. Meredith Crane	2021
Undergraduate Teaching and Research Fellowship to Zinab Eisa	2021
Undergraduate Teaching and Research Fellowship to Manuella Talla Takoukam	2021
Travel Award to AAI for Post-doctoral Investigator Dr. Meredith Crane	2020
Travel Award to AAI for Graduate Student Alexander Jordon	2020
Travel Award to Society for Leukocyte Biology for Post-doctoral Investigator Dr. Meredith Crane	2019
Undergraduate Teaching and Research Fellowship to Marie Piatski	2019
Undergraduate Teaching and Research Fellowship to Karisma Chhabria	2018
Undergraduate Teaching and Research Fellowship to Nicholas Renton	2018
Ethan FitzGerald 5T32GM007601-39 *Training in Molecular and Cell Biology and Biochemistry*	2018-20
Kayla Lee 5T32HL134625-03 *Brown Respiratory Research Training Program*	2018-20
Undergraduate Teaching and Research Fellowship to Nari Lee	2017
Undergraduate Teaching and Research Fellowship to Christina Woo	2017
Undergraduate Teaching and Research Fellowship to Kayla Dwyer	2016
Gregory Serpa 5T32ES007272-27 *Training in Environmental Pathology*	2016-present
Meredith Crane 5T32ES007272-27 *Training in Environmental Pathology*	2015-16
Summer research Assistantships to Tammy Yu	2015
Summer research Assistantships to Lillian Dominguez	2015
Leadership Alliance Award to Yasmine Abbey	2014

TEACHING EXPERIENCE

Tufts University School of Medicine

Microbiology, Infectious Disease, and the Immune System — 2022-2023
Viral Section Head

Brown University Course Teaching

Brown University Course Head

BIOL-1560/2560: *Virology* — 2015-present

Student evaluations: (scale: 5=low, 1=high)

Spring 2015 (29 students): course rating=1.65
Spring 2016 (29 students): course rating=1.57
Spring 2017 (22 students): course rating =1.54
Fall 2017 (15 students, course at Pfizer) course rating =1.58
Spring 2018 Junior Sabbatical course not offered
Fall 2018: (33 students): course rating 1.33

Student evaluations: (scale: 1=low, 5=high)

Fall 2019 (21 students): course rating= 4.58 (=1.42 in old evaluation system)
Fall 2020 (39 students): course rating= 4.47 (=1.53 in old evaluation system)
Fall 2021 (41 students): course rating=4.50 (=1.50 in old evaluation system)

Brown University Course Guest Lectures

BIOL-530 Immunology	2021
NEUR-1740	2021
BIOL-1550 Emerging Microbial Diseases	2021
BIOL-530 Immunology	2020
Biomedical responsible conduct of research (RCR)	2020
BIOL 0940A*:* Viral Epidemics	2019
BIOL 0100: Living Biology at Brown and Beyond	2019
BIOL 0945: Toolbox for Scientific Research	2019
BIOL-1950 Independent Research	2013-present
BIOL-2980 Independent Research	2014-present
BIOL-1550 Emerging Microbial Diseases	2019
Introduction to Pathobiology research	2013-present
Introduction to MCB research	2014-present
BIOL-0180: Biology of AIDS	2016,17
BIOL-1520: Innate Immunity Course	2013-17
BIOL 1250: Host-microbiome Interactions in Health and Disease	2017
Virology Summer at Brown	2015
PHP 2130: Human Biology for Epidemiology	2014

International Post-Graduate Teaching

University of Vienna, Vienna Austria

Immunology Practical Course	Instructor	2009-13
Innate Immunity Course	Lecturer	2009-13

Teaching Assistantships

University of CA, Berkeley

Microbial Pathogenesis (MCB 190)	2001
Introductory Immunology (MCB 150)	1999
Introductory Immunology Laboratory (MCB 150L)	1998

Carleton College, Northfield MN

Energetics and Genetics Lecture and Laboratory BIOL123	1995-96

RESEARCH COMMUNICATIONS

Invited seminars: International (since starting faculty position)

Virtual Seminar Series Cardiff University	2021
Brazilian Society for Immunology Virtual Seminar Series	2020
University of Oxford, United Kingdom *Cancelled due to COVID-19 in March, Zoom in October*	2020
Center for Molecular Medicine, Vienna Austria	2015
Max F. Perutz Laboratories, Vienna Austria	2015
Umea University, Umea Sweden	2014

Invited seminars: National (since starting faculty position)

Kansas State, Manhattan Kansas	2023

University of Alabama, Tuscaloosa, AL (had to cancel and reschedule) 2023
Spotlight on Mucosal Immunology, Respiratory viruses (Abcam) 2023
University of Virginia, Charlottesville, VA (Feb 7th) 2022
Yale University School of Medicine, New Haven CT (via Zoom) 2021
Department of Immunology and Genomic Medicine NGH, Denver, CO (via Zoom) 2021
University of Vermont, Burlington, VT (via Zoom) 2020
Lovelace Biomedical Institute, Albuquerque, NM (via Zoom) 2020
Ocean State Research Institute Providence RI (via Zoom) 2020
Yale University School of Medicine, New Haven CT *Cancelled due to COVID-19* 2020
Lovelace Biomedical Institute, Albuquerque, NM C*ancelled due to COVID-19* 2020
University of Massachusetts Medical School, Worcester MA 2020
University of Texas, Houston, TX 2020
Workshop on Mechanisms of Wound Healing in the Elderly, 2019
NIH/NIA/NIAID Bethesda, Maryland
Stemcell's Lunch and Learn Seminar Series, Cambridge, MA 2019
Pulmonary Research, Rhode Island Hospital, Providence RI 2018
Newport County Dental Society, Middleton, RI 2018
CPVB COBRE Presentation, Providence VAMC, Providence RI 2017
NCI, NIH, Washington DC 2017
Emory University, Atlanta. GA 2017
Pediatric Research Colloquium, RIH, Providence RI 2016
DARPA PI meeting, DARPA Headquarters, Washington D.C. 2016
Wyss Institute at Harvard, Boston, MA 2016
College of the Holy Cross, Worcester, MA 2016
RI Immununology/Infectious Diseases Retreat, Providence, RI 2016
Human Immunology Seminar, Baylor College of Medicine, Houston TX 2016
ThoR PI review meeting, DARPA, Arlington Virginia 2015
Natick Soldier Research Center, Natick, MA 2015
Surgical Research Seminar Rhode Island Hospital, Providence, RI 2015
Seminar Harvard School of Public Health, Boston, MA 2014
Brandeis University, Waltham MA 2014

Invited seminars: Internal (Brown University)

COBRE CPVB seminar 2022
Molecular Cell Biology and Biochemistry Department Seminar, 2020
Brown University Providence RI (via zoom)
COBRE CBHD Seminar, Providence, RI 2019
COBRE CBHD EAC Brown University, Providence RI 2018
CCMB Seminar Series Brown University, Providence, RI 2017
CCMB Seminar Series Brown University, Providence RI 2016
Brown University MCB Graduate Program Retreat, 2016
Haffenreffer Estate, Bristol RI
Brown Institute for Respiratory Diseases (BIRDS) seminar, 2015
Brown University Providence RI
DEANS Award Seminar Series, 2015
Brown University Providence, RI
External Advisory Committee Meeting for CPVB COBRE, 2014
VAMC, Providence RI
MCB Department Departmental Seminar 2014
Brown University, Providence RI

International Conference Speaking Engagements (since starting faculty position)

21st Annual International Meakins-Christie Laboratories Workshop on Molecular Physiology of Respiratory Diseases, Montreal, Canada (Invited Speaker) 2019
Innate Immunity 2015, XL Congress of the Brazilian Society of Immunology Enseada, Brazil (Invited Speaker) 2015

National Conference Speaking Engagements (since starting faculty position)

American Association of Immunologist, Washington, DC (Session Chair and Invited Speaker) 2023
Society for Mucosal Immunology International Meeting, Seattle, WA 2022
Biology of Acute Respiratory Infection GRC, Ventura, CA 2022
American Association of Immunologist, Portland OR 2022
Cold Spring Harbor COVID/SARS-CoV-2 Research Reports #6 (via Zoom) July 7-8 2021
Society for Redox Biology Annual Meeting Presidential Plenary (via Zoom) 2020
Mucosal Immunology Conference and Symposium (MICS), Denver CO (Invited Speaker) 2020
Cancelled due to COVID-19
RI Microbiome Consortium, Kingston RI (Invited Speaker) 2020
Society for Leukocyte Biology, Boston MA (Invited Speaker) 2019
Northeast Regional IDeA Conference (NERIC) (Invited Speaker) 2019
Mount Washington Resort, NH
Twenty Years of Philosophy and Science Conference, Lakeville CT (Invited Speaker) 2019
Rhode Island NIH IDeA Symposium Providence, RI (Invited Speaker) 2019
CFAR Research Symposium, Providence RI (Invited Speaker) 2019
American Association of Immunologists Meeting, (Session Chair and Invited Speaker) 2019
San Diego, CA
Midwinter Conference of Immunologists, Monterey, CA (Invited Speaker) 2019
Society for Leukocyte Biology Meeting, Phoenix, AZ (Invited Speaker) 2018
Biology of Acute Respiratory Infections Gordon Research Conference (Invited Speaker) 2018
Ventura, CA
7th annual Fox Chase Inflammation and Signaling Symposium (Invited Speaker) 2017
Fox Chase Cancer Center Philadelphia, PA
New England Immunology Conference (Invited Speaker) 2017
MBL Woods Hole, MA
DARPA YFA Kickoff meeting, Washington DC (Invited Speaker) 2017
Host/Pathogen Interactions Symposium Merck, Boston MA (Invited Speaker) 2016
Conference: From the Bursa of Fabricus to Macrophages and Beyond (Invited Speaker) 2016
Yale University School of Medicine, New Haven CT
Biology of Acute Respiratory Infections, Gordon Research Conference (Invited Speaker) 2016
Galveston, TX
Vaccine Renaissance Conference, Providence RI (Invited Speaker) 2014
Innate Immunity Meeting Cape Cod, MA (Invited Speaker) 2014
Lymphocyte Biology Conference Berkeley, CA (Invited Speaker) 2014
Immunology Infectious Disease Research Conference (Invited Speaker) 2014
Whispering Pines Conference Center, RI

MENTORING EXPERIENCE

Brown University: Jamieson Lab Mentees

BLUE represents current position
GREEN selected honors

Post-doctoral:
Nivea Farias Luz (Molecular Microbiology and Immunology) 2019-2022
Brazil 2019 Finalist for Pew Latin American Fellowship
Senior Scientist II, Cellular Immunology at Abbvie
Meredith Crane (Molecular Microbiology and Immunology) 2015-present
Selected Junior Researcher Speaker for the Society for Leukocyte Biology Symposium at the 2019 American Association of Immunologists Meeting (San Diego, CA 2019)
Outstanding Poster Award at the 2019 American Association of Immunologists Meeting (San Diego, CA 2019)
Selected Speaker and Travel Award for Society for Leukocyte Biology 2019 meeting
Selected Speaker and Travel Award for the 2021 American Association of Immunologists Meeting
AAI Policy Fellow 2021

Graduate students:
Priyanka Bedi (Biotechnology) 2022-present
Sheryn Bentata (Biotechnology) 2022-present
Catherine Mai Huynh (Pathobiology, Open Master's in Political Science) 2021-present
Selected as a Young Scholar to Represent Brown University at the World Laureates Forum
Valeriia Syrovatska (Biotechnology) 2020-2023
Ethan FitzGerald (MCB) 2017-present
Selected Speaker at the Gordon Research Conference Biology of Acute Respiratory Diseases (Ventura, CA 2018)
Alexander Jordon (Pathobiology) 2019-2021
Selected Speaker for the 2021 American Association of Immunologists Meeting
AAI Trainee Abstract Award
Graduate Student at Brown University
Gregory Serpa (Pathobiology) 2016-2021
Selected Speaker at the Gordon Research Seminar Biology of Acute Respiratory Diseases (Ventura, CA 2018)
Postdoctoral Researcher at The Ohio State
Kayla Campbell (née Lee) (Pathobiology) 2016-2020
Postdoctoral Researcher Engineering, Brown University
Yun (Ryan) Xu (Pathobiology, Open Master's in Entrepreneurship)
Business Performance Senior Manager, Amgen 2014-2018

Brown University Undergraduate Mentees
Undergraduate students:
Betty Dessie (Leadership Alliance Student) 2023
Kieran Pandry 2023-present
Austin Courtney 2022-present
Tessa Devoe 2022-present
Michael Kuharski 2022-present
Kayleen Vicente 2022-present
Manuella Talla Takoukam 2020-2023
Zinab Eisa Intern as Cisco 2019-2022
Cole Guillemin Associate at Magnolia Innovation 2019
Marie Piatski * Clapp Prize for Biochemistry Thesis Medical Student at OHSU 2017-20
Karisma Chhabria * Distinguished Senior Thesis Award Fulbright Fellow
Medical Student at University of Chicago 2017-19
Vishwanath Betapudi 2017-18

Medical Lab Scientist at Beth Israel Deaconess Medical Center
Emma Caviness Brown Master's Student 2017
Nicholas Renton * Medical Student at NYU Grossman School of Medicine 2017-19
Nari Lee * Medical Student at Feinberg School of Medicine, Chicago 2016-18
Christina Woo * Medical Student at NYU Grossman School of Medicine 2016-18
Kayla Dwyer * Graduate student in Epidemiology at Yale School of Public Health 2015-18
Tammy Yu * MD resident 2015-16
Lillian Dominguez * MD resident 2014-16
Yasmine Abbey (Leadership Alliance student) 2014
Medical Student at David Geffen School of Medicine, UCLA
Kayla Campbell (née Lee) Postdoctoral Researcher, Brown University 2013-15
* Honor's thesis

Postbaccalaureate Research Education Program students:
Nicolae Casales 2023-present
Raphael Angelo Zambrano (NIH BUILD PODER program) 2022-present
Anqesha Murray, PhD Student at Rensselaer Polytechnic 2019-20

Research Assistants:
Delia Demers 2020-present
William Henry (Research Assistant) 2016-present
Holly Tran (Research Assistant) RA at Yale School of Medicine 2015-20
Kayla Campbell (née Lee) (Research Assistant) 2015-16
Postdoctoral Researcher, Brown University
Cathy Trebino (Research Assistant) RA, Brown University 2013-14

Brown Rotation students:
Jasmine Clark, Mary Flordelys Avila, Collin Ganser, Xiaoyu (Alina) Yang, Ashley Fernanda Sanchez Sevilla Uruchurtu, Farha Mithila, Lindsey Carlson, Shanelle Reilly, Victoria St. Amand, Maureen Dowell, Maydelis Minaya, Kevin Holt, Jenna Morris-Love, Bedia Akosman, Sean Gillis, Sarah Kaptur, Hadley Witt, Kellyanne Duncan, Christy Rhine, Jocelyn Newton

University of Vienna Mentees
Sandra Haas (Master's Student at University of Vienna) RA at Biotech Austria 2012-14
Pia Gamradt (Master's Student at University of Vienna) 2010-12
Post-doctoral Fellow University of Lyon, France
Christoph Reiser (Master's Student at University of Vienna) RA at BI Austria 2008-10
Isabella Wimmer (Master's Student at University of Vienna) 2008-09
Post-doctoral Fellow at the Medical University of Vienna

Early Mentoring Experience

Yale University Mentored Two PhD candidate rotation students 2006-2008

UC Berkeley Mentored Four undergraduate students and one rotation student 1999-2003

Brown University: Thesis Committee Mentees
Olivia Carneiro (Biotechnology) (Master's program) 2023
Danielle Plunkett (Capstone Thesis mentor) 2022
Alina Yang (Pathobiology PhD program) 2021-present

Radha L. Kalekar (Molecular Biology, Cell Biology, and Biochemistry PhD Program)	2021-present
Amber Morse (Capstone Thesis mentor)	2021-2022
Kenneth Bradley (Biology) (*Second reader ScB honors*)	2021-2022
Hikaru Hayashi (Biology) (*Second reader ScB honors*)	2021-2022
Claire Brown(Biology) (*Second reader ScB honors*)	2021-2022
Christina Vasquez (Biology) (*Second reader ScB honors*)	2020-2021
Alissa Oakes (Molecular Pharmacology and Physiology program) (PhD)(*Chair*)	2021-present
Mary Salib (Neuroscience) (PhD Program)	2021-present
Jennifer Cui (Molecular Biology, Cell Biology, and Biochemistry) (PhD Program)	2020-present
Shivani Mehta (Public Health) (MPH program)	2020-present
Carly Deusenbery (Engineering) (PhD program)	2020-present
Rachael Nilson (Pathobiology) (PhD program)	2020-present
Zhan Wu (Biotechnology) (Master's program)	2019
Matthew Schertler (Biotechnology)(Master's program)	2019
Jenna Wurster (Pathobiology) (PhD program)	2018-2022
Jenna Morris-Love (Pathobiology)	2018-present
Tun Ngyuen (Bioengineering) (*Second reader ScB honors*)	2017
Mayara Grizote-Lake (Pathobiology) (PhD program)	2015-19
Marilyn Le (MPPB) (PhD program)	2015-17
Damien Cabral (Pathobiology) (PhD program) *(Chair)*	2015- 19
Lauren Watts (Pathobiology) (PhD program)	2014-16
Courtney Anderson (Pathobiology) (PhD program)	2013-18
Benedetta Assetta (Pathobiology) (PhD program)	2013-16

Mentor for Early Career Scientists

Mentor for Dr. Fabiola Munarin's CPVB COBRE Pilot Project Award	2019-present

Further Undergraduate Advising

TEAM STEM advising	Member	2018-present
TEAM advisor (Team Enhanced Advising and Mentoring) for underserved first year undergraduate students	Member	2016-present
Concentration declared undergraduates for 5 students (15+ total)	Advisor	2015-present
First and Second Year Undergraduates currently for 8 students (30+ total)	Advisor	2014-present

Further Graduate Advising:

MPP/Therapeutic Sciences graduate program	Trainer	2020-present
CCMB graduate program	Trainer	2019-present
Post-Baccalaureate Research Education Program (PREP)	Trainer	2017-present
MCB graduate program	Trainer	2014-present
BME graduate program	Trainer	2014-present
Pathobiology graduate program	Trainer	2013-present

PROFESSIONAL MEMBERSHIPS

Solving for Science	2022-present
Society for Mucosal Immunology	2021-present
Society for Redox Medicine	2020-present

American Thoracic Society	2018-present
Society of Leukocyte Biology	2017-present
American Association for the Advancement of Science	2016-present
American Society for Microbiology	2014-present
American Society for Immunology	2000-present

CONSULTING EXPERIENCE

The Implementation Group	2020
Merck	2016
William Connolly Law Firm, Washington DC	2007-08

SERVICE and OUTREACH

UNIVERSITY SERVICE:

Brown University Service and Outreach Involvement

Biomed Vivarium Advisory Group for ILSB	Committee Member	2023
University Resources sabbatical replacement member	Committee Member	2023
PREP@Brown post-bac program	co-director	2022-present
PREP@Brown post-bac program	Executive Board Member	2021-present
Pathobiology Graduate Program	co-Director	2021-present
Brown's Social Managers Group	Member	2021-present
Office of Women in Medicine and Science (OWIMS)	Advisory Board Member	2021-23
Elected term		
CIMER workshop Assessing Understanding and Fostering Independence	Discussion leader	2021
Seed Award	Reviewer	2020, 2021
TEAM advising steering committee	Member	2020-present
MCB graduate program retreat anti-racism workshop	Discussion leader	2020
COVID-19 research biomed committee	Floor coordinator	2020-present
University Resources Elected Term	Committee Member	2019-22
University Resources Committee	Vice Chair	2020-22
Living Biology First Year Science Outreach	Invited Faculty Speaker	2019
Seed Award Applications	Reviewer	2019
Member Brown Staff Outreach Seminar	Invited Animal Care Facility Speaker	2018
Young Scholars Conference	Faculty Poster Judge	2018
TEAM advising committee	Member	2017-present
UTRA applications	Reviewer	2016,17,18,19
Salomon Award Applications	Reviewer	2017
DARPA YFA advisory panel	Panelist	2016
TEAM advising committee	Member	2016-17
Academic Career Panel	Panelist	2016
Fall 1st Reading	Discussion Leader	2016,17,18,19

Brown University Departmental Commitments

Pathobiology GP Seminar Series Committee	Chair	2020-2021
Sheridan Center	Departmental Faculty Liaison	2019-present
Pathobiology Graduate Program Admissions Committee	Member	2018-2019
MMI Faculty Search committee	Member	2013-2014

ACADEMIC SERVICE:

Professional Committees and Speaking Engagements

Founding member of the diversity equity and inclusion committee for the Midwinter Conference of Immunologists		2022
American Association of Immunologists Meeting	Speaker/Panelist	2022
Advisory Committee of the Migraine Science Collaborative	Committee Member	2020-present
Council of the Midwinter Conference of Immunologists	Committee Member	2020-2025 (elected term)
Max F. Perutz Laboratories Community Association	President	2015-2020

Grant Review

III Study Section, NIH	*Ad hoc* Reviewer	202
NIH SEP Advancing Therapeutics Study Section	*Ad hoc* Reviewer	2023
RI-INBRE grant	*Ad hoc* Reviewer	2023
Florida Department of Health Biomedical Research Program	*Ad hoc* Reviewer	2022
Carney Institute Innovation Awards	*Ad hoc* Reviewer	2022
LIRR Study Section NIH	*Ad hoc* Reviewer	2022
LCMI Study Section NIH	*Ad hoc* Reviewer	2022
AHA COVID grants	*Ad hoc* Reviewer	2022
NIH IHD study section	*Ad hoc* Reviewer	2022
NIH SEP SBIR/STTR study section	*Ad hoc* Reviewer	2021
NIH Tobacco Regulatory Science	*Ad hoc* Reviewer	2021
NIH SEP SBIR/STTR CVRS-J11 study section	*Ad hoc* Reviewer	2021
James and Esther King Biomedical Research Program	Panelist	2021
James and Esther King Biomedical Research Program	Panelist	2020
NIH SEP SCORE grants	Panelist	2020
Pennsylvania Department of Public Health	Panelist	2020
NIH SEP Member Conflict: Bacterial Pathogenesis and Host Interactions	Panelist	2019
Florida Department of Public Health	Panelist	2019
NIH US-Brazil Grant Special Emphasis Panel	Panelist	2019
Deutsche Forschungsgemeinshaft (German Research Foundation)	*Ad hoc* Reviewer	2018
European Research Council Starting Grant Call	*Ad hoc* Reviewer	2018
Florida Department of Public Health	*Ad hoc* Reviewer	2018
Bankhead-Coley Cancer Research Program	Panelist	2017
James and Esther King Biomedical Research Program	Panelist	2017
ANR Agence Nationale De La Recherche	Ad hoc Reviewer	2017
James and Esther King Biomedical Research Program	Panelist	2016

Book Review

"A short course in Immunology" (2nd edition)	2016

External PhD thesis examiner

Angel Solis, Flavell Lab, Yale University School of Medicine	2019

Journal Editorial Board:

Associate Editor in Frontiers in Immunology-Microbial Immunology	2020

Ad hoc scientific journal review:
Pediatrics, Science Advances, Clinical and Translational Medicine, American Journal of Physiology Lung Cellular and Molecular Physiology, Respiratory Research, Journal of Medicinal Chemistry (ACS), The Lancet Infectious Disease, Microorganisms, Biomedicine Hub, Frontiers in Microbiology, Future Virology, Toxins, Physiological Reports, Transactions of the Royal Society of Tropical Medicine and Hygiene, Journal of Molecular Biology, Biosciences Reports, eLife, JCI insight, Journal of Clinical Investigation, Proceedings of the National Academy of Science, Cell Host and Microbe, Future Microbiology, Vaccine, Journal of Leukocyte Biology, Nature Microbiology, Scientific Reports, mBio, Nature Communications, Trends in Immunology, American Journal of Respiratory Cell and Molecular Biology /AJRCMB, Journal of Biological Chemistry, Journal of General Virology, Medical Microbiology and Immunology, American Journal of Respiratory Critical Care Medicine/AJRCCM, PLoS Pathogens
List of most recent verified reviews: https://publons.com/researcher/1189817/amanda-jamieson/peer-review/

SYMPOSIA CONFERENCE ORGANIZED / SESSIONS CHAIRED:

Careers Roundtable at the American Association of Immunologists Meeting	Session Chair	2023
Session on Innate Immune Responses and Host Defenses at the American Association of Immunologists Meeting	Session Chair	2023
61st Midwinter Conference of Immunologists	Co-Chair	2022
Session on Tissue Inflammation at the American Association of Immunologists Meeting	Session Chair	2022
Session on Lung Infections at the American Association of Immunologists Meeting	Session Chair	2019
Careers Roundtable at the American Association of Immunologists Meeting	Session Chair	2019
NIH/NIAID focus group	Invited Participant	2019
RI Immunology/Infectious Diseases Retreat	Organizer	2014
Vienna Post-doctoral Association 2nd annual retreat	Organizer	2012
Vienna Post-doctoral Association 1st annual retreat	Organizer	2011

COMMUNITY OUTREACH:

Career lunch at Baylor College of Medicine	Panelist	2020
SciToons	Faculty Advisor	2020
Biorender Graphical Abstract Competition	Judge	2020
Career Shadowing for highs school students	Interviewee	2020
McNair Scholars Seminar	Presenter	2018
DARPA Director Dr. Steven H. Walker and Senator Jack Reed	Presenter	2018
Podcast about Women in Science	Participant	2018
Video about UTRA Research at Brown	Participant	2018
Career Panel for post-docs and graduate students	Panelist	2014
Women in Science Group	Member	2014-present

MEDIA-RELATED SCIENCE COMMUNICATION:

News Features Based on:

COVID-19 Seed Award ***GC-coronavirus-killing ink: testing***

February 2021 "Impact" Magazine Cover story

Brown Daily Herald Article

https://www.browndailyherald.com/2020/08/19/now-see-now-dont-developing-protective-ppe-coating-programming-artificial-intelligence-covid-19/

New Features based on:
Crane, M.J.†, Xu Y.† Henry, W.L. Jr., Gillis, S.P., Albina, J.E., **Jamieson A.M.**** Pulmonary IAV infection leads to suppression of the dermal wound healing response PLoS Pathogens 2018 Aug 23; 14(8) (PMCID PMC6107272).

- Highlighted publication in Brown Biomedicine KUDOS for September 2018 Edition
- PLoS Pathogens highlighted article
- Science Daily press release https://www.sciencedaily.com/releases/2018/08/180823141024.htm\
- AAAS Eurekalert https://www.eurekalert.org/pub_releases/2018-08/p-fli081618.php
- ContagionLive https://www.contagionlive.com/news/innate-immune-system-prioritizes-lung-infections-over-wound-healing
- Healogics https://physicians.healogics.com/news/fighting-lung-infection-trumps-wound-healing/
- Wound Care Jobs https://www.woundcarejobs.com/woc-skin-health-weekly/190-august-28-2018
- Article in Brown Biomedicine Magazine about research on wound healing (October 2018)

New Features based on:
Jamieson. A.M.,** Pasman, L., Yu, S., Gamradt, P., Homer, R.J., Decker, T., Medzhitov, R.M. Role of Tissue Protection in Lethal Respiratory Viral-Bacterial Coinfection. Science. 2013 Jul 7:340(6137):1230-4

- Article in Nature Reviews Immunology Research Highlights May 2013 "Resistance is futile"
- In the News:
  - Medical Life Sciences https://www.news-medical.net/news/20130429/New-treatment-options-for-influenza.aspx
  - Global Biodefense https://globalbiodefense.com/2013/04/29/influenza-and-bacteria-a-potentially-fatal-combination/
  - Eureka Alert https://www.eurekalert.org/pub_releases/2010-02/cp-fsr021110.php
  - Yale Medicine https://medicine.yale.edu/immuno/news/article.aspx?id=1462
  - ICT https://www.infectioncontroltoday.com/influenza/flu-and-bacteria-better-prognosis-potentially-fatal-combination
  - Interview with German Public Radio 2013

New Features based on DARPA YFA Award
http://www.browndailyherald.com/2017/10/19/four-professors-awarded-darpa-directors-fellowship/

Other recent interviews:
Interview with Rob Stein at NPR
https://www.npr.org/sections/health-shots/2023/01/18/1149606535/can-you-get-covid-and-the-flu-at-the-same-time?

Highlighted in NHLBI/NIH website
https://www.nhlbi.nih.gov/nhlbi-celebrates-women-scientists/amanda-jamieson-phd

Interview with Boston Globe about flu/bacterial coinfections
https://www.bostonglobe.com/metro/2018/03/05/yes-you-can-have-multiple-kinds-flu-once/4GleBY4Go5m184hFV3Mx8O/story.html

Interview with Sheila Judkins for "Raising Nerds" Blog for Women in Science Month
http://raisingnerd.com/2018/02/05/molecular-microbiology/

Interview with News 10 about ENDS

https://turnto10.com/features/health-landing-page/health-check-surgeon-general-sounds-alarm-on-teen-use-of-e-cigarettes

PROFESSIONAL DEVELOPMENT

Teaching and Mentoring Workshops and Courses

Raising a Resilient Scientist NIH Workshop Series 2022-2023
Office of Women in Medicine and Science (OWIMS) Annual Meeting 2022
Center for Improvement of Mentored Experiences in Research: Assessing Understanding and Fostering Independence. 2021
Inclusive Mentoring URI 2020
Collaborative SPRINT Award mentor for online course design 2020
ANCHOR Online Course Design Sheridan Center 2020
Roundtable: The Science of Effective Mentorship in STEM 2020
TEAM advising steering committee 2020
Sheridan Center Junior Faculty Teaching Fellow 2018-2019
TEAM advisor (Team Enhanced Advising and Mentoring) group 2016-present
Teaching Flipped classes Sheridan Center course July 2015

Professional Skills Workshop

Advanced Media Preparation for Today's Media Landscape 2022-2023
COVID Vaccine Ambassador Training: How to Talk to Parents, Course through Johns Hopkins University 2022
Communicating Science Workshop at Brown University February 2019
Science Communication Workshop at Society for Leukocyte Biology October 2018
Bioconductor Workshops February 2018
Fundamentals of R course January 2018
Understanding tenure and promotion seminar April 2016

Grant Writing Workshops

Grant Writing Seminar March 2018
COBRE Grant Writing workshop April 2015
Grant Writing Fundamentals April 2014

CAREER INTERUPTIONS

I had ≈6.5 years of active research experience during my ≈9 years of post-doctoral time. I obtained a position at the University of Vienna where I taught several classes. During this time, I continued working with and publishing with my post-doctoral mentor Ruslan Medzhitov, however this work was funded by two major grants that I received from the Austrian Science Foundation. It took 9 months after this unexpected move to Austria (in 2008) before I gained approval and established a

facility to do my experiments. I took 12 months of full maternity leave starting in April of 2010 followed by 6 months of part-time work. Also, Austrian pregnancy work laws do not allow work with pathogens or chemicals, thus curtailing my work prior to April 2010. Yet it was a very productive time, as during my post-doctoral period I wrote one book chapter and was an author on 16 high impact publications (on 2 of these I was first or corresponding author), independently funded my research, and did a successful international job search. During my time as an assistant professor, I was granted a one-year extension due to extraordinary personal circumstances.

In addition to these earlier interruptions there is the clear impact that the SARS-CoV-2 pandemic has had on my ability to move some projects forward effectively. The lab was shut down entirely for several months, and at 30% capacity for one year after that (June 2020-June 2021). Our mouse colony was scaled back significantly, and we have only recently recovered itThis has significantly slowed down several projects that were on track to be submitted in 2020 and 2021, including neural control of the lung/skin axis, programmed cell death during coinfection, and adaptations of bacteria to the coinfected lung microenvironment. However, I have found ways to be productive and to contribute to the global effort to combat this pandemic as is seen from my manuscripts and grants that are addressing aspects of this infection. We have started a productive collaboration with a company to test virucidal substances. We have also been able to apply what we have learned from influenza A virus infection, particularly host tolerance response to SARS-CoV2.