Kevin M. Mason, Ph.D.

PRESENT TITLE & AFFILIATION

Assistant Professor, Department of Pediatrics
Center for Microbial Pathogenesis
The Research Institute at Nationwide Children's Hospital
Center for Microbial Interface Biology, College of Medicine
The Ohio State University
Columbus, Ohio

CITIZENSHIP/ VISA STATUS

United States Citizen

OFFICE ADDRESS

The Research Institute at Nationwide Children's Hospital
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(614) 355-3534
Kevin.Mason@nationwidechildrens.org

EDUCATION

UNDERGRADUATE TRAINING

1992	The Ohio State University	B.S. Microbiology

GRADUATE TRAINING

1998	Wright State University	Ph.D. Immunology

POSTGRADUATE TRAINING

1998 – 2000	Duke University, Durham, North Carolina	Postdoctoral Training Dept. of Biochemistry
2000 – 2006	Columbus Children's Research Institute, Columbus, Ohio	Postdoctoral Training Microbial Pathogenesis

ACADEMIC APPOINTMENTS

2008 – Present	Assistant Professor of Pediatrics The Research Institute at Nationwide Children's Hospital Center for Microbial Pathogenesis
2008 – Present	Assistant Professor The Center for Microbial Interface Biology The Ohio State University School of Medicine
2006 – 2008	Research Scientist The Research Institute at Nationwide Children's Hospital Center for Microbial Pathogenesis

SERVICE

ACADEMIC RESPONSIBILITIES

2007, 2010	Roessler Fellowship Award Reviewer
2008 – current	TBDBITL Mentoring Program, The Ohio State University-Mentor-alumni mentoring programs for students interested in research careers
2009	Olentangy High School Mentorship Program- Mentor
2009 – 2015	Denman Undergraduate Research Forum Judge
2009 – 2015	OSUMC Research Day Poster Judge
2009	Edward F. Hayes Graduate Research Forum Abstract Judge
2010 – 2014	Center for Microbial Interface Biology Retreat Judge
2009 – 2014	The Research Institute at Nationwide Children's Hospital Research Week Judge
2010	Summer Scientist Internship Program Mentor
2011 – 2013	Ohio Branch ASM spring meeting – judge
2011, 2013	Abstract judge – 10th International Symposium of Recent Advances in Otitis Media
2012, 2013	High School Career Day, Faculty host and presentation – Gahanna/New Albany Eastland Fairfield STEMM program
2013, 2014	Invited Panel Member – Faculty Highlights – Mechanisms in Human Health – The Research at Nationwide Children's Institute

2013	Moderator – Trainee Career Development Forum – 2013 Midwest Microbial Pathogenesis Meeting
2014-2015	Graduate Student Recruitment – Biomedical Sciences Graduate Program
2014, 2015	Student Review Committee – Mechanisms in Human Health Summer Scholarship Program – The Research Institute at Nationwide Children's Hospital
2014	Postdoctoral Fellow/Graduate Student Pilot Grant Reviewer – The Research Institute at Nationwide Children's Hospital

INSTITUTIONAL ACTIVITIES

2008	The Research Institute at Nationwide Children's Hospital External Scientific Review (Participant)
2008 – 2010	The Research Institute at Nationwide Children's Hospital Research Day Planning Committee (Member)
2010 – 2011	2011 Research Celebration Planning Team, The Research Institute at Nationwide Children's Hospital and The Ohio State University (Faculty Liaison)
2010 – 2014	Faculty Forum Planning Team, The Research Institute at Nationwide Children's Hospital (Member)
2009 – present	Bench to Outcome Seminar Series Planning Team (Member)
2014 – present	Biomedical Sciences Graduate Studies Committee, The Ohio State University (Member)
2015	The Ohio State University College of Medicine/Microbial Infection & Immunity Discovery Themes faculty search committee (Member)

INTERNATIONAL ACTIVITIES

2007	Pathogenesis: Anatomy and Pathology, and Cell biology. Post Symposium Research Conference on Recent Advances in Otitis Media (Panel Member)
2009 – 2015	Program Committee: International Symposium- Recent Advances in Otitis Media (Member)
2010 – 2012	Pathogenesis; Anatomy and Pathology, and Cell Biology. Post Symposium Research Conference on Recent Advances in Otitis Media (Panel Member)

2015	Vaccines. Post Symposium Research Conference on Recent Advances in Otitis Media (Panel Member)

HONORS AND AWARDS

2003	Ruth L. Kirschstein National Research Service Award
2005	Junior Researcher Award, 5th Extraordinary International Symposium on Recent Advances in Otitis Media, Amsterdam, The Netherlands
2006	Postdoctoral Fellow Award for Best Scientific Paper and Presentation Columbus Children's Research Institute
2007	Postdoctoral Fellow Award for Best Scientific Paper and Presentation Columbus Children's Research Institute
2008	New Faculty Travel Award, International *Pasteurellaceae* Society Meeting, Sorrento, Italy
2010	Nominee, The Research Institute at Nationwide Children's Hospital Mentorship Award
2013	Awardee, The Leadership Award of the 2013 Department of Pediatrics Annual Junior Faculty Awards

RESEARCH SUPPORT

COMPLETED RESEARCH SUPPORT

F32- (DC06320) NIH
"Expression of *sap* operon in NTHI-induced Otitis Media"
PI: Kevin Mason, Ph.D.
Role: Principal Investigator
The major goals of this project were to determine the expression of the *sap* operon during the disease course of otitis media, determine the effect on NTHI virulence of strains harboring mutations in the *sap* operon and determine whether the *sap* operon plays a role in activation of peptide resistance determinants when exposed to antimicrobial peptides.
Date: 9/1/2003 – 8/31/2006

R21- (A1070825) NIH
"The NTHI Sap Transporter: A Mechanism of Antimicrobial Peptide Resistance"
PI: Kevin Mason, Ph.D.
Role: Principal Investigator
The major goals of this project were to determine whether antimicrobial peptides (AMPs) are transported for degradation in a Sap-dependent manner and define whether the SapD ATPase confers ATP dependence upon a potassium transport system. This work defined a molecular mechanism by which NTHI resist killing by AMPs, and expanded our understanding of NTHI pathogenesis.
Date: 8/15/2007 – 7/31/2009
$275,000

ONGOING RESEARCH SUPPORT

1 R01 DC013313-01A1 (NIH)
"Disease severity of otitis media: biofilms, invasion and host responses"
PI: Kevin Mason, PhD
PI: Sheryl Justice, PhD
The purpose of this investigation is to further delineate the physiological changes in *Haemophilus* and the host that impact the progression and persistence of otitis media. In order to survive in the mammalian host, NTHI must acquire essential nutrients for growth and biofilm development. The major goals of this study are to 1) Determine the contribution of filamentation and epigenetic modifications on the biofilm developmental changes associated with fluctuations in heme-iron availability; 2) Determine the contribution of heme-iron limitation on the duration and severity of OM sequelae (i.e. subclinical, symptomatic) and 3) Define the subcellular trafficking patterns of NTHI within middle ear epithelium as a consequence of heme-iron availability. The results of these studies will not only provide insight into NTHI survival, but likely identify commonalities of host adaptation and survival utilized by other microorganisms to organize as communities and cause disease.
Dates: 12/1/2013 – 11/30/2018
$1,250,000

OSU/NSF Booster Grant
PI: Kevin Mason, PhD
PI: Sheryl Justice, PhD
This grant provides a small, one-time award up to $2,500 to purchase critical reagents to explore a specific hypothesis, participant fees, small equipment, core services, etc. to advance the investigators research program. We have utilized these funds for the purchase of animals to extend our study of NTHI persistence in the middle ears to additional time points. These data were instrumental in defining the first metabolic screen during infection of the middle ears in an inflammatory model.
Dates: 7/1/2014 – 6/30/2015
$2,500

OSU/NSF Ignition Grant
PI: Kevin Mason, PhD
This grant provides funds to generate essential preliminary data addressing reviewers' concerns for a previously scored grant application. I proposed to co-crystallize SapA with substrate and utilize an animal model of human otitis media to assess changes in virulence of SapA point mutants that are structurally sound, yet no longer bind the select substrate. In Aim 1, I proposed to test the hypothesis that transporter assembly dictates unique functions and assess the kinetics of substrate transport in artificial membranes. Reviewers highlighted strengths of the application such as "novelty", "potential to inspire design of novel therapeutics", "enlightening to other systems", "innovative and could be paradigm shifting if correct"
Dates: 7/1/2014 – 6/30/2015
$20,000

NIH/NIDCD
"Omic administrative supplement for disease severity of otitis media: biofilms, invasion and host responses"
PI: Kevin Mason, PhD
Co-PI: Sheryl Justice, PhD
The purpose of this study is to explore the metabolic and proteomic signatures of the host and bacteria during acute otitis media.

Dates: 9/1/2014 – 8/31/2015
$70,000

Infectious Disease Translational Fund
"Effect of heme-iron restriction of *Haemophilus* on the host immune response and disease severity of otitis media"
PI: Rachael Hardison (Kevin Mason, mentor)
The purpose of this fund is to support the study of the effect of heme-iron restriction of *Haemophilus* on the host immune response and disease severity of otitis media. The central hypothesis is that heme-iron restriction impacts pathogenesis of NTHI through suppression of inflammatory cytokine production and altered host immune responses during experimental OM.
Dates: 3/11/2015 – 12/31/2015
$4,000

PENDING GRANTS

NIH
"Sap Transporter: Selective Antimicrobial Peptide Binding, Import and Persistence"
PI: Kevin Mason, Ph.D.
Nontypeable Haemophilus influenzae (NTHI) causes diseases of the human airways. Our laboratory has identified a novel mechanism of Sap transporter uptake of host derived antimicrobial peptides (AMP) for degradation in the bacterial cytoplasm. This mechanism to thwart AMP lethality is essential for disease development in vivo. The aims of this proposal will provide the information necessary to design novel therapeutics to treat NTHI-induced diseases.
Dates: 4/1/2015 – 3/31/2020
$2,193,664
To be Submitted 6/5/2015

NIH
"Genes essential for stationary phase survival in the human pathogen Acinetobacter"
PI: Kevin Mason, Ph.D.
As part of a comprehensive effort to understand the virulence of *A. nosocomialis*, we will identify genes whose expression changes upon entry into stationary phase. We will complement these data by identifying genes whose expression is essential for stationary phase survival of *Acinetobacter* and persister cell formation, as well as identifying genes critical for protection against desiccation and against antibiotics in stationary phase. These studies will increase our understanding of the mechanisms *Acinetobacter* employs to survive in health care environments and will likely result in the identification of new targets and strategies for the prevention and/or treatment of infections caused by these organisms.
Dates: 7/1/2015 - 6/30/2017
$250,000

INTELLECTUAL PROPERTY

RINCH 2014-029
"Host Protein Response to Otitis Media"
Disclosure Date – 09/13/2014
Investigators –Kevin Mason, Sheryl Justice and Alistair Harrison

1) US Provisional Patent Application Serial No. 62-048,953 filed 09/11/2014

PUBLICATIONS

ARTICLES IN PEER REVIEWED JOURNALS

1. Curiel, R.E., **Mason, K.M.**, Dryden, T.D., Bigley, N.J. (1998). Cytokines produced early in picornavirus infection reflect resistance or susceptibility to disease. **J Interferon Cyt Res**. 18(8):587.

2. **Mason, K.M.**, Bigley, N.J., Fink, P.S. (1998). Development of a novel *in vitro* co-culture system for studying host response to native bacterial antigens. **J Immunol Meth.** 211(1-2):147.

3. **Mason, K.M.**, Dryden, T.D., Bigley, N.J., Fink, P.S. (1998). Staphylococcal enterotoxin B (SEB) primes $CD8^+$ Interferon-γ (INF-γ) secretion and cytotoxic effects in response to native bacterial antigens. **Infect Immun.** 66(11):5082.

4. **Mason, K.M.**, Munson, R.S., Bakaletz, L.O. (2003). Nontypeable *Haemophilus influenzae* gene expression induced *in vivo* in a chinchilla model of otitis media. **Infect Immun.** 71(6):3454.

5. Kesty, N.C*., **Mason, K.M*.**, Reedy, M., Miller, S.E., Kuehn, M.J. (2004). Enterotoxigenic *Escherichia coli* vesicles target toxin delivery into mammalian cells. **EMBO J.** 23(23):4538.
   ***Equal contribution**

6. **Mason, K.M.**, Munson Jr., R.S., Bakaletz, L.O. (2005). A mutation in the *sap* operon attenuates survival of NTHI in a chinchilla model of otitis media. **Infect Immun.** 73(1):599.

7. Novotny LA, **Mason, K.M.**, Bakaletz, L.O. (2005). Development of a chinchilla model to allow direct continuous biophotonic imaging of bioluminescent NTHI during experimental otitis media. **Infect Immun**. 73(1):609.

8. **Mason, K.M.,** Bruggeman, M.E., Munson Jr., R.S., Bakaletz, L.O. (2006). The nontypeable *Haemophilus influenzae* Sap transporter provides a mechanism of antimicrobial peptide resistance and SapD-dependent potassium acquisition. **Mol Micro**. 62(5):1357-1372.

9. Hong, W.*, **Mason, K.M.***, Jurcisek, J.A., Novotny, L.A., Bakaletz, L.O., Swords, W.E. (2007). Phosphorylcholine decreases early inflammation and promotes establishment of stable biofilm communities of NTHI strain 86-028NP in the chinchilla models of otitis media. **Infect Immun**. 75(2):958-965.
   ***Equal contribution**

10. McGillivary, G., **Mason, K.M.**, Jurcisek, J.A., Peeples, M.E., Bakaletz, L.O. (2009). RSV-induced dysregulation of expression of a mucosal β-defensin augments colonization of the upper airway by nontypeable *Haemophilus influenzae*. **Cell. Micro**. 11(9):1399-408.

11. **Mason, K.M.**, Raffel, F.K., Ray, C.W. and Bakaletz, L.O. (2011) Heme Utilization by nontypeable *Haemophilus influenzae* is essential and dependent on Sap transporter function. **J.**

Bact. 193(10): 2527-2535. PMID21441512.

12. Sharpe, S.W., Kuehn, M.J. and **Mason, K.M.** (2011). Elicitation of epithelial-derived immune effectors by outer membrane vesicles of nontypeable *Haemophilus influenzae*. **Infect Immun**. 79: 4361-4369. PMID:21875967.

13. *Shelton, C.L., Raffel, F.K., Beatty, W.L., Johnson, S.M. and **Mason, K.M.** (2011). Sap transporter mediated import and subsequent degradation of antimicrobial peptides in *Haemophilus*. **PLoS Pathogens**. Nov. Vol. 7(11), e1002360.

    *__Highlighted Press Release__:

    Bacteria may protect themselves by stealing immune molecules. November 17, 2011

    InfectionResearch (http://www.infectionresearch.de/news/detail/pressrelease/bacteria_may_protect_themselves_by_stealing_immune_molecules/)
    Sciencenewsline medicine (http://www.sciencenewsline.com/medicine/2011111706070003.html)
    PhysOrg.com (http://www.physorg.com/news/2011-11-bacteria-responsible-common-infections-immune.html)
    Medical News Today: Bacteria behind common infections appropriate immune molecules sent to destroy them. Nov (http://www.medicalnewstoday.com/articles/238013.php)

14. Vogel, A.R., Szelestey, B.R., Raffel, F.K., Sharpe, S.W., Gearinger, R.L., Justice, S.S., and **Mason, K.M.** (2012). SapF-mediated heme-iron utilization enhances persistence and coordinates biofilm architecture of *Haemophilus.* **Frontiers in Cell. and Infect. Microbiology**. April, Vol.2, Article 42.

15. Raffel, F.K., Szelestey, B.R., Beatty W.L. and **Mason, K.M.** (2013). The *Haemophilus influenzae* Sap transporter mediates bacterium-epithelial cell homeostasis. **Infection and Immunity**. 81(1):43-54. Published Ahead of Print October 15, 2012.

16. Harrison, A., Santana, E.A., Szelestey, B.R., Newsom, D.E., White, P. and **Mason, K.M.** (2013). Ferric uptake regulator and its role in the pathogenesis of nontypeable *Haemophilus influenzae.* **Infection and Immunity.** April;81(4):1221-33.

17. Cayé-Thomasen, P., Hermansson, A., Bakaletz, L., PhD, Hellstrøm, S., Kanzaki, S., Kerschner, J., Lim, D., **Mason, K**., Spratley, J.(2013). Recent Advances in Anatomy, Pathology, and Cell Biology in relation to Otitis Media Pathogenesis. **Otolaryngology: Head and Neck Surgery**. 148:sup 4, E37-E51.

18. Szelestey, B.R., Heimlich, D.R., Raffel, F.K., Justice, S.S., and **Mason, K.M.** (2013). *Haemophilus* Responses to Nutritional Immunity: Epigenetic and Morphological Contribution to Biofilm Architecture, Persistence and Disease. **PLoS Pathogens**. Oct. Vol. 9(10):e1003709.

19. Patel, A., Storm, D.W., Singh, C., Horvath Jr. D.J., Li, B., Zhang, J., Koff, S.A., **Mason, K.M.**, and Justice, S.S. (2015) *Escherichia coli* lipopolysaccharide serotype correlates with the magnitude of IL-6 and disease severity of urinary tract infections. *In Revision*

20. Raffel, F.K., Herrera, C., Trent, M.S., Hardison, R. and **Mason, K.M**. (2015). *Haemophilus* Sap transporter function modulates outer membrane biophysical properties and cytokine production *in vivo. Pending submission 4/2015.*

21. Harrison, A., L.G. Dubois, L. St. John-Williams, M.A. Moseley, R.L. Hardison, D.R. Heimlich, A. Stoddard, J.E. Kerschner, S.S. Justice, J.W. Thompson, and **K.M. Mason**. (2015). Comprehensive proteomic and metabolomic signatures of acute otitis media. *Pending submission 4/2015*

PLANNED SUBMISSIONS for 2015

1. Heimlich, D., Tanaka, K., Pinkett, H., and **Mason, K.M.** (2015). Novel Structure function studies of the multifunctional Sap transporter.

2. Hardison, R.L., Justice, S.S., and **Mason, K.M.** (2015). Differential subcellular trafficking elicits intracellular bacterial communities of NTHI.

3. AeKyung, P., Tanaka, K., Heimlich, D., **Mason, K.M**. and H. Pinkett. (2015) Structure of SapA bound to antimicrobial peptide substrate.

4. Hadad, M., Beatty, W. and **Mason, K.M.** (2015). ClpX is essential for intracellular degradation of cytoplasmic antimicrobial peptides.

5. Harrison, A., L.G. Dubois, L. St. John-Williams, M.A. Moseley, R.L. Hardison, D.R. Heimlich, S.S. Justice, J.W. Thompson, and **K.M. Mason** (2015). Haemophilus nutritional conditioning influences proteomic and metabolomic responses in otitis media.

INVITED ARTICLES

1. *Haemophilus* Special Topic (*invited contribution)*: Vogel, A.R., Szelestey, B.R., Raffel, F.K., Sharpe, S.W., Gearinger, R.L., Justice, S.S., and **Mason, K.M.** (2012). SapF-mediated heme-iron utilization enhances persistence and coordinates biofilm architecture of *Haemophilus.* **Frontiers in Cell. and Infect. Microbiology**. April, Vol.2, Article 42.

2. Panel report. 10th International Symposium - Recent Advances in Otitis Media (2012). Per Cayé-Thomasen, MD, DMSc, Ann Hermansson, MD, PhD, Lauren Bakaletz, PhD, Sten Hellstrøm, MD, PhD, Sho Kanzaki, MD, PhD, Joseph Kerschner, MD, David Lim, MD, Jizhen Lin, MD, **Kevin Mason, PhD** and Jorge Spratley, MD, PhD. (2013). Recent Advances in Anatomy, Pathology, and Cell Biology in relation to Otitis Media Pathogenesis. **Otolaryngology: Head and Neck Surgery**. 148: sup 4, E37-E51.

3. (*invited minireview*) Justice SS, Harrison A, Becknell B and **Mason KM** (2014) Bacterial differentiation, development and disease: mechanisms for survival. **FEMS Microbiol Lett**. 2014 Nov;360(1):1-8

4. Antimicrobial Peptides Special Topic (*invited contribution)*. Heimlich, D.R., A. Harrison, **K.M. Mason** (2014). Host antimicrobial peptides in bacterial homeostasis and pathogenesis of disease. **Antibiotics**, 3(4), 645-676.

BOOK CHAPTERS

1. A. Harrison and **K.M. Mason** (2015). **Pathogenesis of *Haemophilus influenzae* in humans** in Emerging and Re-Emerging Human Infections. John Wiley & Sons/Wiley Blackwell Press. *In press.*

ABSTRACTS

1. Hardison, R. S. Justice and **K. Mason**. (2015). Intracellular bacterial community development in nontypeable *Haemophilus influenzae* (NTHI) survival and pathogenesis. 18th International Symposium on Recent Advances in Otitis Media. National Harbor, MD. June 7-11, 2015.

2. Harrison, A., L.G. Dubois, L. St. John-Williams, M.A. Moseley, R.L. Hardison, D.R. Heimlich, A. Stoddard, J.E. Kerschner, S.S. Justice, J.W. Thompson, and **K.M. Mason**. (2015). Comprehensive proteomic and metabolomics signatures of acute otitis media. 18th International Symposium on Recent Advances in Otitis Media. National Harbor, MD. June 7-11, 2015.

3. Heimlich, R.D., K.J. Tanaka, H.W. Pinkett, and **K. M. Mason**. (2015). Persistence of Nontypeable *Haemophilus influenzae* is Dependent upon Selective Import of Nutrients and Host Antimicrobial Peptides. 18th International Symposium on Recent Advances in Otitis Media. National Harbor, MD. June 7-11, 2015.

4. Harrison A., L.G. Dubois, R.L. Hardison, D.R. Heimlich, S.S. Justice, J.W. Thompson, **K.M. Mason** (2014). Quantitative assessment of host proteins within the middle ear during experimental otitis media: An unbiased proteomic study. Abst. 21st Ann. Midwest Microbial Pathogenesis Mtg. Chicago, IL.

5. Heimlich, D.R., K.J. Tanaka, H.W. Pinkett and **K.M. Mason** (2014). Transporter remodeling for selectivity of substrate transport is critical for Haemophilus persistence. Abst. 21st Ann. Midwest Microbial Pathogenesis Mtg. Chicago, IL

6. Hardison, R, S.S. Justice and **K.M. Mason** (2014). Nutritional conditioning promotes intracellular bacterial community formation by *Haemophilus*. Abst. 21st Ann. Midwest Microbial Pathogenesis Mtg. Chicago, IL

7. Hardison, R, Heimlich, D., Justice, S. and **Mason, K.** (2014). Nutritional conditioning promotes intracellular bacterial community formation by *Haemophilus*. Podium presentation. Ohio Branch American Society for Microbiology Meeting. Columbus, OH.

8. Szelestey, B., Heimlich, D. Raffel, F., Justice, S. and **Mason, K.M.** (2014). *Haemophilus* responses to host nutritional immunity influences biofilm architecture, bacterial persistence and disease severity. Gordon Research Conference: Toxins and Pathogenesis 2014.

9. Heimlich, D.R., Szelestey B.R., Raffel, F.K., Justice, S.S. and **Mason, K.M.** (2013). *Haemophilus* responses to nutritional immunity: effects of biofilm architecture, invasion, persistence and disease severity. Abst. 20th Ann. Midwest Microbial Pathogenesis Mtg. Columbus, OH.

10. Raffel, F.K., Szelestey, B.R., Beatty, W.L. and **Mason, K.M.** (2013). The Sap transporter influences diseases severity and the intracellular fate of NTHI. Abst. 20th Ann. Midwest

Microbial Pathogenesis Mtg. Columbus, OH.

11. Justice, S.S., Heimlich, D.R., Szelestey, B.R., Raffel, F.K. and **Mason, K.M**. (2013). *Haemophilus* responses to nutritional immunity: effects on biofilm architecture, invasion, persistence and disease severity. Microbial Pathogenesis and Host Response 2013. Cold Spring Harbor Laboratory Meeting 2013.

12. Szelestey, B., Heimlich, D., Raffel, F., Justice, S. and **Mason, K**. (2013). *Haemophilus* responses to nutritional immunity: effects on biofilm architecture, persistence and disease severity. Selected for Podium presentation. 7th Extraordinary International Symposium on Recent Advances in Otitis Media June 13-16, 2013, Stockholm, Sweden.

13. Raffel, F., Heimlich, D., and **Mason, K**. Mechanisms to Resist Antimicrobial Peptides and Nutritional Immunity Enhance Persistence of Nontypeable *Haemophilus influenzae* (NTHI). (2013). Selected for Podium presentation. 7th Extraordinary International Symposium on Recent Advances in Otitis Media June 13-16, 2013, Stockholm, Sweden.

14. Raffel, F.K., Szelestey, B.R., Beatty, W.L. and **Mason, K.M**. (2013). Nontypeable *Haemophilus influenzae* utilizes Sap transporter function to sense microenvironmental cues and enhance survival in the host. Center for Microbial Interface Biology Meeting, The Ohio State University Medical Center, Columbus, Ohio.

15. Heimlich, D.R., Szelestey B.R., Raffel, F.K., Justice, S.S. and **Mason, K.M.** (2013). Transient heme-iron restriction perpetuates enhanced biofilm architecture that influences persistence of nontypeable Haemophilus influenzae and disease severity. Center for Microbial Interface Biology Meeting, The Ohio State University Medical Center, Columbus, Ohio.

16. Heimlich, D.R., Szelestey B.R., Raffel, F.K., Justice, S.S. and **Mason, K.M.** (2012). Transient heme iron restriction perpetuates enhanced biofilm architecture that influences persistence of Nontypeable *Haemophilus influenzae* and disease severity. Abst. 19th Ann. Midwest Microbial Pathogenesis Mtg. Milwaukee, WI.

17. Raffel, F.K., Szelestey, B.R. Beatty, W. and **Mason, K.M.** (2012). Nontypeable *Haemophilus influenzae* sense microenvironmental cues to influence disease severity and enhance persistence in the host. Abst. 19th Ann. Midwest Microbial Pathogenesis Mtg. Milwaukee, WI.

18. Raffel, F.K., Szelestey, B. and **Mason, K.M.** (2012). Sap Transporter Function Contributes to Epithelial Cell Invasion and Alteration of Cell Cytokine Responses. Abst. Ohio Branch ASM Spring Mtg.
    **selected for podium presentation*

19. Szelestey, B., Raffel, F.K., Justice, S.S. and **Mason, K.M.** (2012). Transient heme restriction primes altered biofilm formation and enhanced fitness of Nontypeable *Haemophilus influenzae in vivo.* Abst. Ohio Branch ASM Spring Mtg.
    **selected for podium presentation*

20. Sharpe, S.W., Kuehn, M.J. and **Mason, K.M.** (2011). *Haemophilus* outer membrane vesicles stimulate immunomodulatory activity of host cells. Abst. 18th Ann. Midwest Microbial Pathogenesis Mtg. Ann Arbor, MI.
    ** abstract selected for Honorable Mention Award*

21. Szelestey, B., Dabdoub, S., Justice, S. and **Mason, K.M.** (2011) Heme availability influences biofilm development and architecture by nontypeable *Haemophilus influenzae.* Abst. 18th Ann. Midwest Microbial Pathogenesis Mtg. Ann Arbor, MI.
    **abstract selected for Honorable Mention Award*

22. Raffel, F.K. and **Mason, K.M.** (2011) Modeling NTHI pathogenesis utilizing a nutrient-deprived and immune susceptible bacterial strain. Abst. 18th Ann. Midwest Microbial Pathogenesis Mtg. Ann Arbor, MI.

23. Harrison, A., White, P., Newsom, D., and **Mason, K.M.** (2011). The ferric uptake regulator and its role in the pathogenesis of the nontypeable *Haemophilus influenzae.* Abst. 2011 Center for Microbial Interface Biology Annual Meeting, The Ohio State University Medical Center, Columbus, Ohio.

24. Sharpe, S.W., Kuehn, M.J. and **Mason, K.M.** (2011). Nontypeable *Haemophilus influenzae* outer membrane vesicles adversely effect epithelial cells and contribute to innate immune resistance. Abst. 2011 Center for Microbial Interface Biology Meeting, The Ohio State University Medical Center, Columbus, Ohio.

25. Szelestey, B., Dabdoub, S., Justice, S. and **Mason, K.M.** (2011) Heme availability influences biofilm development and architechture by nontypeable *Haemophilus influenzae.* Abst. 2011 Center for Microbial Interface Biology Meeting, The Ohio State University Medical Center, Columbus, Ohio.
    **selected for podium presentation*

26. Raffel, F.K. and **Mason, K.M.** (2011) Modeling NTHI pathogenesis utilizing a nutrient-deprived and immune susceptible bacterial strain. Abst. 2011 Center for Microbial Interface Biology Meeting, The Ohio State University Medical Center, Columbus, Ohio.

27. Shelton (Leimbach), C.L., Beatty, W.L., Raffel, F.K. and **Mason, K.M.** (2011). Import and degradation of antimicrobial peptides as a mechanism of inate immune evasion and nutritional foraging in nontypeable *Haemophilus influenzae*. Abst. Ohio Branch ASM Spring Mtg.
    **selected for podium presentation*.

28. Raffel, F.K. and **Mason, K.M.** (2011). The *Haemophilus* Sap transporter is required for commensal establishment and pathogenesis. Abst. Ohio Branch ASM Spring Mtg.

29. Sharpe (Wallace), S.M., Kuehn, M.J. and **Mason, K.M.** (2011). Nontypeable *Haemophilus influenzae* outer membrane vesicles contain virulence-associated proteins and adversely affect epithelial cells. Abst. Ohio Branch ASM Spring Mtg.

30. Vogel, A.R. and **Mason, K.M.** (2011). The SapF ATPase enhances *Haemophilus* innate immune resistance, nutrition acquisition, and biofilm formation. Abst. Ohio Branch ASM Spring Mtg.

31. Raffel, F.K. and **Mason, K.M.** (2011). The *Haemophilus* Sap transporter is required for commensal establishment and pathogenesis. Abst. 10th Intl. Symp. Recent Adv. in Otitis Media.

32. Sharpe (Wallace), S.M., Kuehn, M.J. and **Mason, K.M.** (2011). Nontypeable *Haemophilus influenzae* outer membrane vesicles contain virulence-associated proteins and adversely affect epithelial cells. Abst. 10th Intl. Symp. Recent Adv. In Otitis Media.
    **selected for podium presentation.*

33. Johnson, S.M., Shelton (Leimbach), C.L., Beatty, W.L., Raffel, F.K. and **Mason, K.M.** (2011). Import and degradation of antimicrobial peptides as a mechanism of inate immune evasion and nutritional foraging in nontypeable *Haemophilus influenzae*. 10th Intl. Symp. Recent Adv. In Otitis Media.
    **selected for podium presentation.*

34. Raffel, F.K. and **Mason, K.M.** (2010). The multifunctional Sap transporter is required for commensal-host cell homeostasis. Abst. 110th General Mtg., Am. Soc. for Microbiol.

35. Raffel, F.K. and **Mason, K.M.** (2010). The multifunctional Sap transporter is required for commensal establishment and pathogenesis. Abst. 17th Ann. Midwest Microbial Pathogenesis Mtg., St. Louis, MO.

36. Johnson, S.M., Shelton, C.L., Beatty, W.L., Raffel, F.K. and **Mason, K.M.** (2010). Import and degradation of antimicrobial peptides as a mechanisms of innate immune evasion in *Haemophilus*. Abst. 17th Ann. Midwest Microbial Pathogenesis Mt., St. Louis, MO.

37. Vogel, A.R. and **Mason, K.M.** (2010). The SapF ATPase enhances *Haemophilus* innate immune resistance, nutrition acquisition, and biofilm formation. Abst. 17th Ann. Midwest Microbial Pathogenesis Mt., St. Louis, MO.

38. Sharpe (Wallace), S.M, Kuehn, M.J. and **Mason, K.M.** (2010). *Haemophilus* outer membrane vesicles and their functional role in pathogenesis. Abst. 17th Ann. Midwest Microbial Pathogenesis Mt., St. Louis, MO.

39. Leimbach, C.F., Raffel, F.K. and **Mason, K.M**. (2009). Special Ops: tracking the transport and fate of antimicrobial peptides in nontypeable *Haemophilus influenzea*. Abst. 16th Ann Midwest Microbial Pathogenesis Mtg.

40. McGillivary, G., **Mason, K.M.**, Jurcisek, J.A., Peeples, M.E. and Bakaletz, L.O. (2009). Nontypeable *Haemophilus influenzae* colonization of the upper airway is augmented by RSV-induced dysregulation of expression of a mucosal beta-defensin. Abst. 109th General Mtg., Am. Soc. for Microbiol.

41. Szelestey, B.R., Justice S.S., and **Mason, K.M.** (2009). Morphological plasticity during heme starvation and biofilm development in nontypeable *Haemophilus influenzae* (NTHI). Abst. 109th General Mtg., Am. Soc. for Microbiol.

42. Leimbach, C.F., Raffel, F.K. and **Mason, K.M.** (2009). Tracking the transport and fate of antimicrobial peptides in nontypeable *Haemophilus influenzea* (NTHI). Abst. 109th General Mtg., Am. Soc. for Microbiol.

43. **Mason, K.M.**, Raffel, F.K. and Szelestey, B.R. (2008). The *Haemophilus influenzae* Sap proteins are essential for both antimicrobial peptide resistance and heme utilization. Abst. International Pasteurellaceae Society 2008 Meeting. Sorrento, Italy.

44. **Mason, K.M.**, and Bakaletz, L.O. (2008). The Sap transporter is critical to survival strategies by non-typeable *Haemophilus* influenzae (NTHi). Abst. 108th General Mtg., Am. Soc. for Microbiol.

45. **Mason, K.M.**, and Bakaletz, L.O. (2008). The *Haemophilus influenzae* periplasmic Sap protein

is essential for both antimicrobial peptide resistance and heme utilization. Abst. HINMAX 2008. 1st Intl. Workshop on *Haemophilus influenzae* and *Moraxella catarrhalis.* Beurs World Trade Center Rotterdam,The Netherlands.

46. Jurcisek, J.A., **Mason, K.M.**, and Bakaletz, L.O. (2008). Sub-lethal concentrations of antimicrobial peptides alter biofilm formation by nontypeable *Haemophilus influenzae* (NTHi). Abst. 108th General Mtg., Am. Soc. for Microbiol.

47. **Mason, K.M**., Munson Jr., R.S., Bakaletz, L.O. (2007). The Sap transporter is critical for the commensal and pathogenic behavior of nontypeable *Haemophilus influenzae* (NTHi). Abst. 9th Intl. Symp. Recent Adv. in Otitis Media.

48. Marshall, J.M., **Mason, K.M.**, Munson Jr., R.S., Bakaletz, L.O. (2007). The Sap transport system inner membrane permease of nontypeable *Haemophilus influenzae* (NTHI) mediates potassium acquisition in conjunction with antimicrobial peptide resistance. Abst. 107th General Mtg., Am. Soc. for Microbiol.

49. Bruggeman, M.E., McGillivary, G**., Mason, K.M.**, Munson Jr., R.S. Bakaletz, L.O. (2007). Microbe-induced dysregulation of expression of mucosal antimicrobial peptides influences colonization of the chinchilla upper respiratory tract by nontypeable *Haemophilus influenzae*. Abst. 107th General Mtg., Am. Soc. for Microbiol.

50. **Mason, K.M.**, Munson Jr., R.S., Bakaletz, L.O. (2007). SapA, the *sap* operon periplasmic binding protein, binds heme and mediates iron homeostasis in nontypeable *Haemophilus influenzae* (NTHI). Abst. 107th General Mtg., Am. Soc. for Microbiol.

51. Hong, W., **Mason, K.M.**, Jurcisek, J.A., Novotny, L.A., Bakaletz, L.O., Swords, W.E. (2007). Role of lipooligosaccharides in establishment of stable biofilm communities of nontypeable *Haemophilus influenzae* strain 86-028NP in a chinchilla model of otitis media. Abst. 4th ASM Conference on Biofilms.

52. **Mason, K.M.**, Munson Jr., R.S**.,** Bakaletz, L.O. (2006). The nontypeable *Haemophilus influenzae* Sap transporter provides a mechanism of antimicrobial peptide resistance. Abst. 13th Ann. Midwest Microbial Pathogenesis Mtg.

53. **Mason, K.M.**, Hill, S.R., Munson Jr., R.S., R.S. Jr., Bakaletz, L.O. (2006). Exposure of nontypeable *Haemophilus influenzae* (NTHI) to antimicrobial peptides results in rapid development of a resistant phenotype that is dependent upon the sap transporter. Abst. 106th General Mtg., Am. Soc. for Microbiol.

54. **Mason K.M.**, Bruggeman, M.E., Munson Jr., R.S., Bakaletz, L.O. (2005). The *sap* system is required for resistance to antimicrobial peptides and is differentially regulated *in vivo* in a superinfection model of otitis media. Abst. 105th General Mtg., Am. Soc. for Microbiol.

55. Bruggeman, M.E., **Mason, K.M.**, Munson Jr., R.S., Bakaletz, L.O. (2005). Nontypeable *Haemophilus influenzae* respond to micro-environmental cues to mediate an antimicrobial peptide-resistant phenotype. Abst. Fifth Extraordinary Intl. Symp. Recent Adv. in Otitis Media.

56. **Mason, K.M.**, Munson Jr., R.S**.,** Bakaletz, L.O. (2005). The *sap* operon is a major virulence determinant of NTHI-induced acute otitis media and is differentially regulated by antimicrobial peptides. Abst. Fifth Extraordinary Intl. Symp. Recent Adv. in Otitis Media.

57. McGillivary, G., **Mason, K. M.**, Bevins, C.L., Munson Jr., R.S., Bakaletz, L.O. (2005). Characterization of two mucosal antimicrobial peptides in a chinchilla model of otitis media. Abst. Gordon Research Conference, Antimicrobial Peptides.

58. McBroom, A., S. Bauman, N. Kesty, **K. Mason** and M. Kuehn. (2005). Bacterial outer membrane vesicles - Biogenesis and host cell interactions. Cold Spring Harbor Microbial Pathogenesis and Host Response, Cold Spring Harbor, NY

59. **Mason, K.M.**, Bruggeman, M.E., Munson Jr., R.S., Bakaletz, L.O. (2004). Heme regulates *sap* operon expression in nontypeable *Haemophilus influenzae* (NTHI) and confers resistance to antimicrobial peptides. Abst. 11th Ann. Midwest Microbial Pathogenesis Mtg.

60. Novotny, L.A., **Mason, K.M.**, Munson Jr., R.S., Bakaletz, L.O. (2004). Construction and evaluation of *lux*-expressing *Haemophilus influenzae* for use in chinchilla models of otitis media. Abst. 104th General Mtg., Am. Soc. for Microbiol.

61. **Mason, K.M.**, Munson Jr., R.S**.,** Bakaletz, L.O**.** (2004). The *Sap* operon is required for nontypeable *H. influenzae* (NTHI) survival in a chinchilla model of otitis media. Abst. 104th General Mtg., Am. Soc. Microbiol.

62. **Mason, K.M.**, Munson Jr., R.S., Bakaletz, L.O. (2003). The *sap* operon confers resistance to antimicrobial peptides and is required for nontypeable *Haemophilus influenzae* (NTHI) survival in a chinchilla model of otitis media. Abst. 10th Ann. Midwest Microbial Pathogenesis Mtg.

63. **Mason, K.M.**, Munson Jr., R.S., Bakaletz, L.O. (2003). Use of differential fluorescence induction to identify site-specific nontypeable *Haemophilus influenzae* (NTHI) gene expression in a chinchilla model of otitis media. Abst. 8th Intl. Symp. Recent Adv. in Otitis Media, p.111.

64. **Mason, K.M.**, Zhang, Y., Munson Jr., R.S., Bakaletz, L.O. (2003). A mutation in the *sap* operon attenuates nontypeable *Haemophilus influenzae* (NTHI) survival in a chinchilla model of otitis media. Abst. 103rd General Mtg., Am. Soc. Microbiol.

65. Kesty, N., **K. Mason** and M. Kuehn. (2003). Heat labile enterotoxin acts as an adhesin and entry mechanism for outer membrane vesicles produced by Enterotoxigenic *E. coli*. Gordon Research Conference: Microbial Adherence and Signal Transduction, Salve Regina.

66. **Mason, K.M.**, Munson Jr., R.S., Bakaletz, L.O. (2002). Identification of nontypeable *Haemophilus influenzae* (NTHi) genes induced in vivo by differential fluorescence induction in a chinchilla model of otitis media. Abst. 102nd General Mtg., Am. Soc. Microbiol.

67. Kesty, N.C., **K.M. Mason** and M.J. Kuehn. (2001). Enterotoxigenic *Escherichia coli* (ETEC) heat-labile enterotoxin (LT) mediates binding and internalization of outer-membrane vesicles by host cells. Abst. 101st General Mtg., Am. Soc. Microbiol.

68. **Mason, K.** Kesty, N., Vemulapalli, S., Horstman, A., Kuehn, M. (2001). Enterotoxigenic *E. coli* vesicles deliver toxin into epithelial cells. Cold Spring Harbor Microbial Pathogenesis and Host Response, Oct. 2001 Cold Spring Harbor, NY.

69. Kuehn, M., **K. Mason**, N. Kesty and A. Horstman. (2000). Toxic Outer Membrane Vesicles Secreted by Enterotoxigenic *E. coli*. Gordon Research Conference: Bacterial Cell Surfaces. New

London, NH

70. **Mason, K.M.**, N.J. Bigley and P.S. Fink. (1997). Staphylococcal enterotoxin B (SEB) primes CD8+ interferon-γ (IFN-γ) secretion in response to bacteria. Abst. 97th General Mtg., Am. Soc. Microbiol.

71. **Mason, K.M.**, N.J. Bigley and P.S. Fink. (1997). Staphylococcal enterotoxin B (SEB) primes CD8+ interferon-γ (IFN-γ) secretion in response to native bacterial antigens. Abst. Cold Spring Harbor Lab. Mtg. On Microbial Pathogenesis and Host Response.

72. **Mason, K.M.**, N.J. Bigley and P.S. Fink. (1996). Superantigen pretreatment alters host immune response to oral microflora. FASEB J. 10:#1043, A1180.

EDITORIALS AND REVIEW ACTIVITIES

JOURNAL REVIEWER

Ad hoc Reviewer	Infection and Immunity Microbiology FEMS Microbiology letters PLoS Pathogens PLoS One Antimicrobial Agents and Chemotherapy Frontiers in Cellular and Infection Microbiology Journal of Infectious Diseases Glycoconjugate Journal International Journal of Pediatric Otorhinolaryngology Canadian Cystic Fibrosis Foundation BMC Infectious Diseases BMC Genomics J Pharm Technol Drug Res FEMS Microbiology Toxins Respiratory Research

GRANT REVIEWER

2009	Special Emphasis Panel ZRG1IDM-Q(53) – RFA-OD-09-008 BRDG-SPAN and RFA-OD-09-009 **Catalyst ARRA Review Panel 7**, National Institutes of Health
2010-2014	Canadian Cystic Fibrosis Foundation
2013, 2014	Italian Ministry of Health (MOH), Department of Public Health and Innovation, General Direction for Scientific and Biomedical Research and Vigilance on the Institutes
2013, 2014	College of Medicine/Nationwide Children's Discovery Grant Reviewer
2014	Department of Defense Congressionally Directed Medical Research Programs

(CDMRP) Peer Reviewed Medical Research Program, **Respiratory Health - 1 (RH-1) panel**

TEACHING

COURSES TAUGHT

2008	Microbial Pathogenesis, Didactic Lecture, Graduate Students (evaluation score = 91.1%)
2009	Current Topics in Microbial Pathogenesis, Graduate Student Group Journal Discussion (evaluation score = 95.8%)
2009	Microbial Pathogenesis, Didactic Lecture, Graduate Students (evaluation score = 95.2%)
2010	Current Topics in Microbial Pathogenesis, Graduate Student Group Journal Discussion (evaluation score = 98%)
2010	Microbial Pathogenesis, Didactic Lecture, Graduate Students (evaluation score = 94%)
2011	Selected Topics in Microbial Pathogenesis, Graduate Students (evaluation score = 94%)
2011 – 2015	Center for Microbial Pathogenesis, Journal Club/Discussion Group (evaluation score = 97%)
2012	Selected Topics in Microbial Pathogenesis, Graduate Students (evaluation score = 99%)
2008 – 2014	Microbiology 7724/IBGP 7240, Microbial Pathogenesis- Haemophilus Lecture, Graduate Students
2014	BSGP 7400, Current Topics in Microbial Pathogenesis, Graduate Students (evaluation = 98.7%)

LECTURES

LOCAL/ REGIONAL LECTURES

2006	**The NTHI Sap transporter: A mechanism of antimicrobial peptide resistance**. Columbus Children's Research Institute Annual Retreat Award Presentation, Columbus, Ohio
2010	**The *Haemophilus* Sap transporter: functional interface between metabolism and innate immune resistance**. Center for Microbial Interface Biology 2010 Retreat. Columbus, OH.
2010	**Sinusitis: Treatment and Molecular Targets for Therapy**. Bench to Outcomes Seminar Series (BOSS), Nationwide Children's Hospital,

Columbus, Ohio

2014 **Host innate and nutritional immunity: a paradoxical effect on *Haemophilus*-mediated disease severity**. Ohio Branch American Society of Microbiology Meeting, Columbus, Ohio

2015 ***Haemophilus* persistence: this ain't duck hunting!** Center for Microbial Interface Biology Work in Progress Discussion Group, Columbus, Ohio

NATIONAL/ INTERNATIONAL LECTURES

2003 **Use of differential fluorescence induction to identify site-specific nontypeable *Haemophilus influenzae* (NTHI) survival in a chinchilla model of otitis media**. 8th International Symposium on Recent Advances in Otitis Media, Ft. Lauderdale, Florida

2005 **The *sap* operon is a major virulence determinant of NTHI-induced acute otitis media and is differentially regulated by antimicrobial peptides**. 5th Extraordinary International Symposium on Recent Advances in Otitis Media, Amsterdam, The Netherlands

2007 **The Sap transporter is critical for the commensal and pathogenic behavior of nontypeable *Haemophilus influenzae* (NTHi).** 9th International Symposium on Recent Advances in Otitis Media, St. Pete Beach, Florida

2008 **The nontypeable *Haemophilus influenzae* (NIHI) Sap transporter: equipping the commensal**. Department of Neuroscience, Cell Biology and Physiology, Wright State University, Dayton, Ohio

2008 **The *Haemophilus influenzae* periplasmic Sap protein is essential for both antimicrobial resistance and heme utilization**. HINMAX2008, 1st International Workshop on *Haemophilus Influenzae* and *Moraxella catarrhalis*, Beurs World Trade Center, Rotterdam, The Netherlands

2008 **The *Haemophilus influenzae* Sap proteins are essential for both antimicrobial peptide resistance and heme utilization**. International *Pasteurellaceae* Society 2008 Meeting, Sorrento, Italy

2011 **Import and degradation of antimicrobial peptides as a mechanism of innate immune evasion and nutritional foraging in nontypeable *Haemophilus influenzae***. 10th International Symposium for Recent Advances in Otitis Media, New Orleans, Louisiana

2011 **Metabolism meets innate immune resistance: A multi-functional**

transporter critical for *Haemophilus* pathogenesis. 18th Annual Midwest Microbial Pathogenesis Meeting, Ann Arbor, Michigan

2012 **Mechanisms to resist antimicrobial peptides and nutritional immunity enhance persistence of nontypeable *Haemophilus influenzae* (NTHI)**. University of Michigan, Molecular and Clinical Epidemiology of Infectious Diseases Seminar Series, Ann Arbor, Michigan

2012 **Mechanisms to resist antimicrobial peptides and nutritional immunity enhance persistence of nontypeable *Haemophilus influenzae* (NTHI)**. Emory University, Department of Microbiology and Molecular Genetics, Atlanta, Georgia

2012 **Mechanisms to resist antimicrobial peptides and nutritional immunity enhance persistence of nontypeable *Haemophilus influenzae* (NTHI)**. University of California San Diego, Rheumatology, Allergy & Immunology Seminar Series, San Diego, California

2012 **Antimicrobial peptide resistance and nutritional immunity enhance persistence of nontypeable *Haemophilus influenzae* (NTHI)**. University of Iowa, Infectious Disease Seminar Series, Iowa City, Iowa

2012 **Mechanisms to resist antimicrobial peptides and nutritional immunity enhance persistence of nontypeable *Haemophilus influenzae* (NTHI)**. University of Texas Southwestern Medical Center, Department of Microbiology, Dallas, Texas

2013 **Mechanisms to resist antimicrobial peptides and nutritional immunity enhance persistence of nontypeable *Haemophilus influenzae* (NTHI)**. University of California Davis, Department of Medical Microbiology and Immunology, Davis, California

2013 **Mechanisms to resist antimicrobial peptides and nutritional immunity enhance persistence of nontypeable *Haemophilus influenzae* (NTHI)**. 7th Extraordinary International Symposium on Recent Advances in Otitis Media, Stockholm, Sweden

2013 ***Haemophilus* responses to nutritional immunity: effects on biofilm architecture, persistence and disease severity**. 7th Extraordinary International Symposium on recent Advances in Otitis Media, Stockholm, Sweden

2013 ***Haemophilus* virulence: the paradox of immunity**. Department of Microbiology, Medical College of Wisconsin, Milwaukee, Wisconsin

2014 **The paradoxical effect of host immunity on *Haemophilus*-mediated disease severity**. Department of Molecular Genetics, Biochemistry and Microbiology, University of Cincinnati, College of Medicine, Cincinnati, Ohio

2014 **The paradoxical effect of host immunity on *Haemophilus*-mediated**

	disease severity. Department of Microbiology and Immunology, Indiana University School of Medicine, Indianapolis, Indiana
2014	***Haemophilus influenzae*: biofilms, invasion, and disease severity**. Department of Microbiology, Miami University of Ohio, Oxford, Ohio
2015	**Pathogenesis of acute otitis media: a proteo-metabolomics analysis of host-bacterial interactions**. University of Pittsburgh, Pittsburgh, PA
2015	***Haemophilus influenzae* biofilms: nutritional immunity and maintenance**. 18th International Symposium on Recent Advances in Otitis Media. *Invited Speaker*; Minisymposium: Biofilm Maintenance. National Harbor, MD. June 7-11, 2015.

MENTORED TRAINEES

High School Students

2009	Rachel Gearinger Olentangy High School Mentorship Program
2010	Carmen Casillas Worthington Kilbourne High School, Summer Scientists Internships Program
2011	Andrew Jurcisek Olentangy Orange High School
2012 – 2013	Allison Mason Gahanna Lincoln Research Program (K. Mason, mentor) • First place award for ***E. coli* biofilms: what lurks in the deep end**, Eastland Fairfield Career and Technical Schools and Nationwide Children's Research Institute
2013	Griffin Kinney Gahanna Lincoln High School
2015	Samantha Loeffler STEM-Bodies Program, Metro Early College High School
2015	Meghan O'Bryan STEM-Bodies Program, Metro Early College High School

Undergraduate Students

2009 – 2010	Kailey Schmeling Miami of Ohio
2010 – 2011	Andrew Vogel

John Carroll University
- Third Place, Poster Competition, 10th International Symposium on Recent Advances in Otitis Media, 2011
- Biology Scholar Award for outstanding research activity, 2011
- Junior Honor Thesis based upon work completed during 2009 summer internship in the Mason laboratory

2011 — Rachel Gearinger
DePauw University

2013 — Ilesh Patel
The Ohio State University

2012 – 2014 — Matthew Hadad
Notre Dame University
- President's Circle Committee Recipient of Summer Funding for Research Internship in the Mason Laboratory, 2013
- President's Circle Committee Recipient of Summer Funding for Research Internship in the Mason Laboratory, 2015

Master's Students

2009 - 2011 — Blake Szelestey
Wright State University
- Abstract selected for Honorable Mention Award, Midwest Microbial Pathogenesis Conference Meeting, 2011
- Abstract selected for oral presentation, Center for Microbial Interface Biology Research Retreat, 2011
- Awarded Medical School Anatomy Instructorship, Wright State University School of Medicine, 2010

Medical Students

2012 – 2013 — Blake Szelestey
Wright State University Boonshoft School of Medicine
- Abstract selected for oral presentation at Ohio Branch of the American Society for Microbiology, 2012

2014 - 2015 — Andrew Vogel
Ohio University, Heritage College of Osteopathic Medicine
- Second Place, Biomedical/Clinical Research Award, Ohio University Osteopathic Symposium 2nd Annual Research Poster Competition and Exhibition, 2012
- First Place Basic Science Award, Poster Competition, 10th Annual Ohio University Heritage College of Osteopathic Medicine Research Day, 2011
- 4th year medical student Research Internship Rotation
- First Place Biomedical Poster, 2015 Ohio Osteopathic Symposium

Doctoral Students

2008	Joanna Marshall (Rotation Student) Integrated Biomedical Science Program The Ohio State University
2008	Forrest Raffel (Rotation Student) Integrated Biomedical Science Program The Ohio State University
2009	Sara Johnson (Rotation Student) Integrated Biomedical Sciences Program The Ohio State University
2013	Julia Scordo (Rotation Student) Biomedical Sciences Graduate Program The Ohio State University
2014	Heather Eggleston (Rotation Student) Biomedical Sciences Graduate Program The Ohio State University
2014	Rachael Hardison (Rotation Student) Biomedical Sciences Graduate Program The Ohio State University • Abstract selected for podium presentation, Ohio Branch American Society for Microbiology Meeting, 2014
2010 – 2011	Sara Johnson Integrated Biomedical Sciences Program Ph.D. Candidate The Ohio State University • Abstract selected for podium presentation, 10th International Symposium on Recent Advances in Otitis Media, 2011 • Abstract selected for podium presentation, Ohio Branch American Society for Microbiology Meeting, 2011
2009 – 2014	Forrest Raffel Integrated Biomedical Sciences Program Ph.D. Graduated The Ohio State University • Ph.D. Graduate, Integrated Biology Graduate Program, The Ohio State University, 2013 • Selected for Postdoctoral Recruitment Symposium, Cincinnati Children's Hospital Medical Center, 2013 • Abstract selected for oral presentation, Ohio Branch American Society for Microbiology Meeting, 2012 • Third Place, Oral Presentation, 10th International Symposium on Recent Advances in Otitis Media, 2011 • Abstract selected for podium presentation, 10th International Symposium on Recent Advances in Otitis Media, 2011
2014 - present	Rachael Hardison

Biomedical Sciences Graduate Program Ph.D. Candidate
The Ohio State University

- Abstract selected for oral presentation at the Annual Meeting of the Ohio Branch of the American Society for Microbiology. Columbus, OH 2014
- The Research Institute Infectious Disease Consortium Travel Award 2014
- The Research Institute Infectious Disease Consortium Research Award 2015
- The Research Institute Trainee Association (RITA) Travel Award 2015
- The Ohio State University Biofilm Trainee Travel Award 2015
- 2015 Graduate Student Research Award, The Research Institute at Nationwide Children's Hospital
- 18th International Symposium on Recent Advances in Otitis Media, 2nd Place Podium Presentation

Laboratory Staff

2008 – 2010 Farah Yasmine Waheed, Research Aide

2008 – 2009 Blake Szelestey, Research Assistant

2008 – 2010 Catherine (Leimbach) Shelton, Research Associate

- Recipient of the Choose Ohio First Scholarship (awarded to outstanding graduate program applicants who are Ohio Residents)
- Current Position: Ph.D. candidate in the Department of Molecular Genetic, Biochemistry and Microbiology Ph.D. program at the University of Cincinnati College of Medicine, 2010- 2015

2009 – 2011 Andrew Vogel, Research Intern

- Second Place, Biomedical/Clinical Research Award, Ohio University Osteopathic Symposium 2nd Annual Research Poster Competition and Exhibition, 2012
- First Place Basic Science Award, Poster Competition, 10th Annual Ohio University Heritage College of Osteopathic Medicine Research Day, 2011
- Current position: Medical Student, Ohio University, Heritage College of Osteopathic Medicine
- First Place Biomedical Poster, 2015 Ohio Osteopathic Symposium

2009 – 2011 Samantha (Wallace) Sharpe, Research Associate

- Abstract selected for Honorable Mention Award, Midwest Microbial Pathogenesis Conference Meeting, 2011
- First Place, oral presentation, 10th International Symposium on Recent Advances in Otitis Media, 2011
- Abstract selected for podium presentation, 10th International Symposium on Recent Advances in Otitis Media, 2011

- Best Poster Presentation Award by a Research Assistant, The Research Institute at Nationwide Children's Hospital Annual Research Week, 2010
- Current position: Research Business Operations Coordinator, Research Institute Sponsored Projects, The Research Institute at Nationwide Children's Hospital

2008 – 2012 Blake Szelestey, Research Associate
- Current position: Medical Student, Wright State University Boonshoft School of Medicine

2013 – 2014 Rachael Hardison, Research Assistant
- Current position: Graduate Research Assistant

2012 – Present Derek Heimlich, Research Associate
- 18th International Symposium on Recent Advances in Otitis Media, 1st Place Poster Presentation

2014 - Present Alistair Harrison, Senior Research Scientist

Ph.D. Examination Committees

2008 – 2012 Carolyn Marion, Ph.D. Graduate Student, Integrated Biomedical Science Graduate Program, The Ohio State University

2008 - 2014 Forrest Raffel, Ph.D. Graduate Student, Graduate Student, Biomedical Sciences Graduate Program, The Ohio State University (**K.M Mason, mentor**)

2010 - 2013 Chris Jones, Ph.D. Graduate Student, The Ohio State University, Integrated Biomedical Science Graduate Program

2011 – 2012 Hussam Salhi, Ph.D. Graduate Student, The Ohio State University, Integrated Biomedical Science Graduate Program

2014 – 2015 Sankalp Malhotra, M.D./Ph.D. Graduate Student, Biomedical Sciences Graduate Program, The Ohio State University

2014 – present Matthew Pestrack, Ph.D. Graduate Student, Biomedical Sciences Graduate Program, The Ohio State University

2015 – present Rachael Hardison, Ph.D. Graduate Student, Biomedical Sciences Graduate Program, The Ohio State University (**K.M. Mason, Sheryl S. Justice co-mentor**)

2015 Christian Harding, Ph.D. Graduate Student, Biomedical Sciences Graduate Program, The Ohio State University

Scholarship Oversight Committee

2012 – 2014	Elizabeth Lucas, MD, Infectious Disease Fellow, Nationwide Children's Hospital

Senior Honor Thesis Committee

2012	Caroline Linke, Research Intern, Center for Microbial Pathogenesis, The Research Institute at Nationwide Children's Hospital

PROFESSIONAL MEMBERSHIPS & ACTIVITIES

Member, American Society for Microbiology

Member, American Association for the Advancement of Science

Member, Sigma Xi Scientific Research Society

Updated 6/17/2015