Jacob Matthew Allen, PhD

**University of Illinois at urbana-champaign**

**Kinesiology and Community Health**

**Division of Nutritonal Sciences**

JMALLEN5@ILLINOS.EDU

# Education & Training

2017-2020 Postdoctoral Scientist, Nationwide Children’s Hospital

**Microbial Pathogenesis**; Area of study: *Effects of stress and nutrition on microbiome-host interactions*

2013-2017 Doctor of Philosophy, University of Illinois at Urbana-Champaign

**Kinesiology**; Area of Study: *Effects of exercise and nutrition on the gut microbiome*

2011-2013 MasteR of Arts, University of North Carolina at Chapel Hill **Exercise Physiology**; Area of study: *Effects of exercise on the innate immune system in breast cancer survivors*

2009-2011 Bachelor of SCIENCE, University of North Carolina at Chapel Hill Major: Exercise Physiology; Minor: Biology

2007-2009 Bachelor of Science, University of North Carolina at Wilmington

Major: Biology; Transferred to University of North Carolina at Chapel Hill

# Positions and Employment

2020-Current ASSISTANT PROFESSOR, Department of Kinesiology and Community Health,

University of Illinois at Urbana-Champaign, Urbana, IL

**2020-Current FACULTY, Division of Nutritional Sciences (DNS).**

**University of Illinois, Urbana-Champaign**

**2020-Current MEMBER, Microbial Systems Initiative, University of Illinois, Urbana-Champaign, IL**

**2020-Current AFFILIATE FACULTY, Institute for Genomic Biology (IGB), Microbiome and Metabolic Engineering (MME) theme. University of Illinois, Urbana-Champaign**

2017-2020Postdoctoral Scientist, Center for Microbial Pathogenesis

Nationwide Children’s Hospital (NCH), Columbus, OH

2013-2017 Graduate Research and Teaching Assistant

University of Illinois, Urbana-Champaign, IL

2011-2013Graduate Research and Teaching Assistant

University of North Carolina, Chapel Hill, NC

# Professional Memberships and LEADERSHIP ROLES

2017-2020 Center representative for the research training association (RITA), Nationwide Children’s Hospital, Columbus, OH

2017-2020Trainee Ambassador for the center for microbial pathogenesis, Nationwide Children’s Hospital, Columbus, OH

2017-2020 Member, Infectious Disease Institute, The Ohio State University, Columbus, OH

2013-2017 Integrative Immunology and Behavior Program, University of Illinois, Urbana-Champaign, IL

2015- 2016Research Intern, Germ-Free Facility, Mayo Clinic, Rochester, MN

2014-PresentMember, Psychoneuroimmunology Research Society

2011-Present Member, American College of Sports Medicine, Indianapolis, IN

# Research Experience

#### Manuscripts (1st and Corresponding Author)

1. **Allen J.M.\*,** Mackos AR, Jaggers RM, Brewster PC, Webb M, Lin CH, Ladaika C, Davies R, White P, Loman BR, Bailey MT. Psychological stress disrupts intestinal epithelial cell function and mucosal integrity through microbe and host-directed processes. Gut Microbes. 2022 Jan-Dec;14(1):2035661. doi: 10.1080/19490976.2022.2035661. PMID: 35184677.
2. Piccolo B.D., Moody B., Webb M., Mailing L.J., Gao X., Hernandez-Saavedra D., Adams S., Woods J.A., **Allen J.M\*.** (2022). Exercise training modifies the gut and serum xenometabolome of lean and obese adult humans. *In preparation*.
3. **Allen J.M.**, Jaggers R.M., Solden L.M., Loman B.R., Davies R.H., Mackos A.R., … Bailey M.T. (2019). Dietary Oligosaccharides Attenuate Stress-Induced Disruptions in Immune Reactivity and Microbial B-Vitamin Metabolism. *Front Immunol*. doi:10.3389/fimmu.2019.01774.
4. **Allen J.M.**, Mailing L.J., Niemiro G.M., Moore R., Cook M.D., White B.A., . . . Woods J.A. (2018). Exercise Alters Gut Microbiota Composition and Function in Lean and Obese Humans. *Med Sci Sports Exerc.* doi: 10.1249/MSS.0000000000001495.
5. **Allen J.M.**, Mailing L.J., Cohrs J., Salmonson C., Fryer J.D., Nehra V., . . . Woods J.A. (2017). Exercise training-induced modification of the gut microbiota persists after microbiota colonization and attenuates the response to chemically-induced colitis in gnotobiotic mice. *Gut Microbes*. doi: 10.1080/19490976.2017.1372077.
6. **Allen J.M.**, Berg Miller M.E., Pence B.D., Whitlock K., Nehra V., Gaskins H.R., . . . Woods J.A. (2015). Voluntary and forced exercise differentially alters the gut microbiome in C57BL/6J mice. *J Appl Physiol*. doi: 10.1152/japplphysiol.01077.2014.

\*Corresponding Author

#### Manuscripts (Co-Author)

1. Jaggers R.M, DiSabato D.J,. Loman B.R.., Kontic D, Spencer K..D, **Allen J.M**., Godbout J.P., Quan N, Gur T.L., Bailey M.T.(2022) Stressor-Induced Reduction in Cognitive Behavior is Associated with Impaired Colonic Mucus Layer Integrity and is Dependent Upon the LPS-Binding Protein Receptor CD14. J Inflamm Res. 2022 Mar 3;15:1617-1635. doi: 10.2147/JIR.S332793.
2. Biruete A, Cross TL, **Allen J.M.,** Kistler BM, de Loor H, Evenepoel P, Fahey GC Jr, Bauer L, Swanson KS, Wilund KR. Effect of Dietary Inulin Supplementation on the Gut Microbiota Composition and Derived Metabolites of Individuals Undergoing Hemodialysis: A Pilot Study. J Ren Nutr. 2021 Sep;31(5):512-522. doi: 10.1053/j.jrn.2020.10.003. Epub 2021 Jun 11. PMID: 34120835; PMCID: PMC8403151.
3. Mackos A.R., **Allen J.M.**, Kim E., Ladaika C.A., Gharaibeh R.Z., Moore C., Parry N.M., Boyaka P.N., Bailey M.T. (2019). Mice deficient in epithelial or myeloid cell IkkB have distinct microbiomes and increased resistance to *Citrobacter rodentium* infection. *Front Immunol.* doi*:* 10.3389/fimmu.2019.02062.
4. Dettmer A.M., **Allen J.M.**, Jaggers R.M., & Bailey M.T. (2019). A descriptive analysis of gut microbiota composition in differentially reared infant rhesus monkeys (Macaca mulatta) across the first 6 months of life. *Am J Primatol*. doi: 10.1002/ajp.22969.
5. Mailing L.J., **Allen J.M.**, Pence B.D., Rytych J., Sun Y., Bhattacharya T.K., . . . Woods J.A. (2019). Behavioral response to fiber feedings cohort-dependent and associated with gut microbiota composition in mice. *Behav Brain Res*. doi: 10.1016/j.bbr.2018.09.012.
6. [Mailing L.J](https://www.ncbi.nlm.nih.gov/pubmed/?term=Mailing%20LJ%5BAuthor%5D&cauthor=true&cauthor_uid=30883471)., [**Allen J.M**](https://www.ncbi.nlm.nih.gov/pubmed/?term=Allen%20JM%5BAuthor%5D&cauthor=true&cauthor_uid=30883471)**.**, [Buford T.W](https://www.ncbi.nlm.nih.gov/pubmed/?term=Buford%20TW%5BAuthor%5D&cauthor=true&cauthor_uid=30883471)., [Fields C.J](https://www.ncbi.nlm.nih.gov/pubmed/?term=Fields%20CJ%5BAuthor%5D&cauthor=true&cauthor_uid=30883471)., Woods J.A., (2019). Exercise and the Gut Microbiome: A Review of the Evidence, Potential Mechanisms, and Implications for Human Health. *Exerc Sport Sci Rev*. doi: 10.1249/JES.0000000000000183.
7. Biruete A., **Allen J.M.**, Kistler B.M., Jeong J.H., Fitschen P.J., Swanson K.S., Wilund K.R. (2019). Gut microbiota and cardiometabolic risk factors in hemodialysis patients: A pilot study. *Top Clin Nutr*. doi: 10.1097/TIN.0000000000000170.
8. Gur T.L., Palkar A.V., Rajasekera T., **Allen J.M.**, Niraula A., Godbout J., & Bailey M.T. (2018). Prenatal stress disrupts social behavior, cortical neurobiology and commensal microbes in adult male offspring. *Behav Brain Res*. doi: 10.1016/j.bbr.2018.06.025.
9. Niemiro G.M., **Allen J.M.**, Mailing L.J., Khan N.A., Holscher H.D., Woods J.A., & De Lisio M. (2018). Effects of endurance exercise training on inflammatory circulating progenitor cell content in lean and obese adults. *J Physiol*. doi: 10.1113/JP276023.
10. Matt S.M., **Allen J.M.**, Lawson M.A., Mailing L.J., Woods J.A., & Johnson R.W. (2018). Butyrate and Dietary Soluble Fiber Improve Neuroinflammation Associated With Aging in Mice. *Front Immunol*. doi: 10.3389/fimmu.2018.01832.
11. Olson J.K., Navarro J.B., **Allen J.M.**, McCulloh C.J., Mashburn-Warren L., Wang Y., . . . Besner G.E. (2018). An enhanced Lactobacillus reuteri biofilm formulation that increases protection against experimental necrotizing enterocolitis. *Am J Physiol Gastrointest Liver Physiol*. doi: 10.1152/ajpgi.00078.2018.
12. Nehra V., **Allen J.M.**, Mailing L.J., Kashyap P.C., Woods J.A. (2016). Gut microbiota: modulation of host physiology in obesity*. Physiology*. doi: 10.1152/physiol.00005.2016.
13. Cook M.D., **Allen J. M.**, Pence B.D., Wallig M.A., Gaskins H.R., White B.A., & Woods J.A. (2016). Exercise and gut immune function: evidence of alterations in colon immune cell homeostasis and microbiome characteristics with exercise training. *Immunol Cell Biol*. doi: 10.1038/icb.2015.108.
14. Panasevich M.R., **Allen J.M.**, Wallig M.A., Woods J.A., Dilger R.N. (2015). Moderately fermentable potato fiber attenuates signs and inflammation associated with experimental colitis in mice. *J* *Nutr*. doi: 10.3945/jn.115.218578.

#### Book Chapters

1. **Allen J.M.**, Sun Y., Woods J.A. (2015). Chapter Fourteen: Exercise and the Regulation of Inflammatory Responses. *Prog Mol Biol Transl Sci*. doi: 10.1016/bs.pmbts.2015.07.003.

#### Abstracts (1st Author or Senior Author)

1. Webb W.C., Resendiz-Moctezuma C., Miller M.J. **Allen J.M.** (2022). Fermented foods as a source of immunomodulatory microbial-derived metabolites: indole-3-lactic acid and 4-hydroxyphenyllactic acid. University of Illinois MicroEra Symposium. April 11th, 2022.
2. Lin C.H., **Allen J.M.** (2022). Microbial-derived aromatic amino acid metabolites modify inflammatory signaling and cellular energy status in a human monocyte cell line University of Illinois MicroEra Symposium. April 11th, 2022.
3. Piccolo B.D., Moody B., Webb M., Mailing L.J., Gao X., Hernandez-Saavedra D., Adams S., Woods J.A., **Allen J.M.** (2021). Exercise training modifies the gut and serum xeno-metabolome of lean and obese adult humans. *Personalized Nutrition Symposium. University of Illinois at Urbana-Champaig*n.
4. **Allen J.M\*.**, Mackos A.R., Dokhanchi, Jaggers RM., Loman B.R., Bailey M.T. (*2021).* Psychological stress disrupts intestinal epithelial cell function through microbe and host-directed processes. *Keystone Symposium: Neuroimune interactions. \*Corresponding and presenting author.*
5. **Allen J.M.**, Mackos A.R., Jaggers R.M. Bailey M.T. (2020). Stress initiates a pro-inflammatory transcriptional response in intestinal epithelial cells dependent on the gut microbiota. *College of Dentistry Research Day, The Ohio State University*.
6. **Allen J.M.**, Jaggers R.M., Solden L.M., Loman B.R., Mackos A.R., Ladaika C.A., Berg B.M., Chichlowski M., Bailey M.T. (2019). Dietary oligosaccharides attenuate stress-induced disruptions in immune reactivity and microbial B-vitamin metabolism. *Psychoneuroimmunology Research Society Annual Meeting.*
7. **Allen. J.M.**, Ladaika C.A., Navarro J.B., Goodman S.D., Besner G.E., Bailey M.T. (2018). A single dose of *Lactobacillus reuteri* induces rapid and transient accumulation of CD4+ intraepithelial lymphocytes in the mouse small intestine following antibiotic exposure. *Nationwide Children’s Hospital Research Retreat*.
8. **Allen J.M.**,Olson J.K., Navarro J.B., McCulloh C.J., Mashburn-Warren L., Varaljay V.A., Bailey M.T., Goodman S.D., Besner G.E. (2018).*Lactobacillus reuteri* adhered to dextranomer microsphere alters the gut microbiome and limits disease severity during experimental Necrotizing Enterocolitis in rats. *Keystone Symposia on the Gut Microbiota*.
9. **Allen J.M.**, Kashyap P., Salmonson C., Fryer J., Nehra V., White B., Woods J.A. (2016). Exercise-induced changes in gut microbiota alters response to colitis in mice: Clinical scores and body weight differences. *Midwest Brain Behavior and Immunity Meeting*.
10. **Allen J.M.**, Panasevich M.R., Pence B.D., Sun Y., Dilger R.N., Woods J.A. (2015). Acute exercise increases short chain fatty acid concentrations in the mouse cecum. *American College of Sports Medicine Conference*.
11. **Allen J.M.**, Panasevich M.R., Pence B.D., Sun Y., Dilger R.N., Woods J.A. (2015).Acute exercise increases short chain fatty acid concentrations in the mouse cecum. *Midwest Brain Behavior and Immunity Meeting*. Invited speaker.
12. **Allen J.M.**, Mailing L., Holscher H., Swanson K., Boardman L., Murray J., Jensen M., Nehra V., Woods J.A. (2015). Utilizing the gut microbiota to predict weight loss from a volumetric diet and exercise program in obese adults. *Mayo Clinic Individualizing Medicine Conference*.
13. **Allen J.M.,** Berg-Miller M.E., Pence B.D., Whitlock K., Nehra N., Gaskins R., Fryer J.D., White B.A., Woods J.A. (2014). Forced and voluntary exercise differentially alters the microbiome in the feces and cecum of C57Bl/6J mice*. Mayo Clinic Individualizing Medicine Conference*.
14. **Allen J.M.**, Wang J., Pence B.D., Cook M.D., Whitlock K., Molitor M., Woods J.A. (2014). Short bouts of voluntary wheel running reduce the inflammatory insult of ulcerative colitis in C57Bl/6J. *Psychoneuroimmunology Research Society Meeting*.
15. **Allen J.M.**, Kang S.S., Jeraldo P.R., Kurti A., Berg-Miller M.E., Cook M.D., Whitlock K., Goldenfeld N., Woods J.A., White B.A., Chia N., Fryer J.D. (2014). High fat diet and exercise orthogonally alter the gut microbiome and reveal independent associations with anxiety and cognition. *University of Illinois* *Nutritional Sciences Symposium*.
16. **Allen J.M.**, Pearson C., VanBruggen M., Battaglini C., Hackney A.C. (2013). Association between serum and salivary cortisol responses to varying exercise in endurance trained males*.* *Southeastern American College of Sports Medicine Conference*.

#### Abstracts (Co-Author)

1. Elliehausen C.J., Fairfiled. W.D., Minton D.M., Nichol A.D., Ratchmacher J.A., Pitchford L.M., Paluska S.A., **Allen. J.M**., Konopka A.R. (2022). Impact of -Hydroxy--methylbutyrate plus Vitamin D3 Supplementation on Skeletal Muscle Size, Function and Quality in Sedentary and Resistance Exercise Trained Women. Experimental Biology Conference. Philadelphia, PA, April 2-4th 2022.
2. Talavera M., **Allen J.M.**, Pool C., Liu Y., Nelin L., Bailey M.T. (2019). Mkp-1 deficiency shapes microbial intestinal diversity in neonatal mice. *Pediatric Academic Societies Meeting*.
3. Mailing L.J., **Allen J.M.**, Wang S.S., Kashyap P., White B.A., Woods J.A. (2019). Effects of transplanting an exercised or sedentary microbiota into gnotobiotic mice on global gene expression in gut, muscle, and brain tissue. *FASEB Journal*, doi: 10.1096/fasebj.2019.33.1\_supplement.lb293.
4. Shelby R., Tengberg N., Conces M., Navarro J., **Allen J.M.**, Wang Y., Bailey M., Goodman S.D., Besner G.E. (2018). A novel probiotic platform therapy for the treatment of clostridium difficile colitis. *Podium presentation at the Annual Presidential Symposium of the Columbus Surgical Society*.
5. Kurti S.P., **Allen J.M.**, Abella J., Mailing L.J., Woods J.A., Rosenkranz S.K., Harms C.A. (2018). The Impact of Physical Activity Level on the Oral Microbiome: A Cross-Sectional Investigation. *Medicine and Science in Sports and Exercise.* doi: 10.1249/01.mss.0000536380.91457.7d.
6. Pence B.D.**,**Bhattacharya T.K., Rytych J.L., Park P., **Allen J.M.**, Sun Y., McCusker R.H., Kelley K.W., Johnson R.W., Rhodes J.S., Woods J.A. (2016). Effects of dietary fiber and exercise on cognition, muscle function, and SCFA in young mice. *Medicine and Science in Sports and Exercise.* doi: 10.1249/01.mss.0000486569.15440.e0.
7. Pence B.D., Bhattacharya T.K., Rytych J.L., Park P., **Allen J.M.**, Sun Y., McCusker R.H., Kelley K.W., Johnson R.W., Rhodes J.S., Woods J.A. (2016). Dietary fiber and exercise: Effects on muscle function, cognition, and short-chain fatty acids in mice. *FASEB Journal*, doi: 10.1096/fasebj.30.1\_supplement.1287.5.
8. Pence B.D., Bhattacharya T.K., Rytych J.L., Park P., **Allen J.M.**, Sun Y., McCusker R.H., Kelley K.W., Johnson R.W., Rhodes J.S., Woods J.A. (2016). EGCG decreases mortality in a dose-dependent fashion but does not improve cognition in mice.*FASEB Journal*, doi: 10.1096/fasebj.30.1\_supplement.407.1.
9. Biruete A., **Allen J.M.**, Kistler B.M., Jeong J.H., Fitschen P.J., Swanson K.S., Wilund K.R. (2016).Gut microbiome and clinical risk factors in maintenance hemodialysis patients. *Nephrol Dial Transplant*.
10. Woods J.A., **Allen J.M.**, Miller M.B., White B.A., Gaskins H., Nehra V. (2015). Exercise alters the gut microbiome and microbial metabolites: Implications for colorectal cancer and inflammatory bowel disease. *Midwest Brain Behavior and Immunity Meeting*.
11. Panasevich M.R., **Allen J.M.**, Woods J.A., Dilger R.N. (2015).Moderately fermentable potato fiber attenuates symptoms during experimental colitis. *FASEB Journal,* doi: 10.1096/fasebj.29.1\_supplement.265.2.
12. Pence B.D., Bhattacharya T.K., Park P., Sun Y., Rytych J.L., **Allen J.M.**, McCusker R.H., Kelley K.W., Johnson R.W., Rhodes J.S., Woods J.A. (2015). A Diet Containing EGCG and Beta-Alanine Decreases Mortality and Improves Balance in Aged Mice, but Does Not Affect Cognitive Function. *FASEB Journal*, doi: 10.1096/fasebj.29.1\_supplement.392.4.
13. Graff R.G.**, Allen J.M.**,Battaglini C.L., Mills R.C., Evans E.S., Ryan E.R., Hackney A.C. (2014). Leukocyte, leukocyte subsets and inflammatory cytokine responses to resistance exercise in breast cancer survivors*. Southeast American College of Sports Medicine Annual Meeting.*

# Current Research Support

Sept 30, 2020- Current

**R56-AG068747- National Institutes of Health (NIA)** Buford (PI)

*Title: Age-Related Gut Dysbiosis and Physical Reselince*

The purpose of this grant is to understand how the ageing gut microbiome modifies physical resilince. We will specefially examine how shifts in microbial metabolites mediate changes to muscle cachexia and physical fraility associated with ageing.

Status: In progress

**Role: Co-Investigator, on-Site Prinical Investigator (PI) at UIUC**

Award Amount: $289,424

July 1, 2021-Current

**Center for Healthy Aging and Disability** Allen, Jacob (PI)

Title: *Gastrointestinal And Metabolic Effects from a Prebiotic, Lifting, and Aerobic iNtervention (GAMEPLAN)*

Submitted April 5th 2021

Status: in Progress

Role: Principal Investigator

Award Amount: $30,000

# Pending Research Support

2022

**NIH RO1DK131133** Allen, Jacob (PI)

National Institute of Diabetes and Degestive and Kidney Diseases

Title: *Role of epithelial ROS signaling in mediating psychological stress-induced mucosal dysfunction and infectious colitis predisposition*

*Percentile: 20*

*Study council decision pending May 2022*

Role: Principal Investigator

Anticipated Award Amount: $3.85 million

2022

**Personalized Nutrition Seed Grant** Allen,Jacob (PI)

University of Illinois’ Personalized Nutrition Initiative

Title: Role of exercise and fermented food diets as methods to promote immune modulating xenometabolites

Submitted: January 2022.

Role: Principal Investigator

Anticipated Award Amount: $50,000

2022/8/01-2023/07/31 Loman (PI)

**ACES Matchstick Proposal**

Title: *Enhancing Porcine Intestinal Antimicrobial Peptide Responses Through Diet-Microbiome Interactions*

Role: Co- Investigator

Anticipated Award Amount: $50,000

Status: In Review

# Research SuppOrt Completed during last three years

Sep 1, 2020- Aug 31, 2021

**METABOLIC TECHNOLOGIES, INC** Allen, Jacob (PI)

Title: *Independent and combined effects of resistance exercise training and beta-hydroxy beta-methylbutyrate plus vitamin D3 on body composition and skeletal muscle health*

Status: Completed

Role: Principal Investigator

Award Amount: $232,700

Jan 4, 2019 – March 30, 2022

**T32 - RUTH L. KIRSCHSTEIN NATIONAL RESEARCH SERVICE AWARD** Allen, Jacob (PI)

NIDCR Comprehensive Training in Oral and Craniofacial Sciences Fellowship at The Ohio State University.

Title: *Stress and Gut Tryptophan Metabolism: Pathways of Disruption and Potential Avenues for Intervention*

The purpose of this grant was to unravel the how the stress modulates tryptophan metabolism within the the gut microbiota and the subsequent interactions between microbial tryptophan metabolites and host immunity

Status: Completed

Role: Principal Investigator

Award amount: 3 years full salary support

July 1, 2018 – June 30, 2019

**POSTDOCTORAL IDEA AWARD - NCH** Allen, Jacob (PI)

Title: *Understanding stress-induced modulation of tryptophan metabolism in host gut and resident microbiota: potential avenues for intervention*

The purpose of this grant was to unravel the how the stress modulates tryptophan metabolism within the the gut microbiota and the subsequent interactions between microbial tryptophan metabolites and host immunity.

Status: Completed

Role: Principal Investigator

Award amount: $20,0000

# Honors and Presentations

2022 American Society for Nutrition- *Peter Reeds J. Young Investigator Award*. Award is given for outstanding research in macronutrient metabolism accomplished within 5 years of receiving a Ph.D. degree or completing residency training

2022 Invited Speaker. ‘National Institute on Aging Virtual Workshop: Understanding Heterogeneity of Responses to, and Optimizing Clinical Efficacy of, Exercise Training in Older Adults’. April 7-8th, 2022.

2021 Invited Speaker. 2021 ‘Biological Stress: From Cells to Societies’ Symposium: Pathways in Biological Sciences (PIBS) at the University of California at San Diego (UCSD)

2020 Invited Speaker. 1st Inaugural Virtual Microbiome Summit. May 19-22, 2020. www.virtualmicrobiomesummit.com

2020 Postdoctoral Fellow Award for Outstanding Presentation. The Ohio State’s College of Dentistry Research Day. March 3rd, 2020. Columbus, OH.

2020 Invited Keynote Speaker to the 2020 2nd Annual Meeting Nutrition Forum sponsored by the Mexican Danone Institute. March 12th, 2020. Mexico City, Mexico.

2019 J.B. Russell Young Scientist Award for “Best Oral Presentation”. The Congress on Gastrointestinal Function. Chicago, IL.

2019 Invited Speaker. 2019 Infectious Disease Research Symposium at Nationwide Children’s Hospital, Columbus, OH.

2018 Invited Keynote Speaker. German Olympic Congress for Sports Medicine Specialists. Hamburg, Germany.

2016Invited Speaker to PsychoNeuroImmunology Research Society Conference, Symposium: Behavior and the Microbiome. Brighton, England.

2016Mayo Center for Individualized Medicine Conference Outstanding Paper Award, Rochester, MN.

2015Mayo-UIUC Individualizing Medicine Conference Scholarship, Mayo-UIUC Alliance, Urbana, IL and Rochester, MN.

2014Roger Morse Most Promising Graduate Student Award, University of Illinois, Urbana-Champaign, IL.

2014Invited Speaker to Integrative Physiology and Exercise Conference, Symposium: Guts, Hearts and Smarts, Miami, FL.

# Teaching Experience and Mentoring

**DISSERTATION AND THESIS SUPERVISION**

***University of Illinois***

**Doctoral or Master’s Thesis Advising & Committees**

|  |  |  |  |
| --- | --- | --- | --- |
| **Name of Student** | **Role** | **Degree; Research title** | **Date** |
| **PhD** | | | |
| Chia-Hao Lin | Primary Advisor | MS in Kinesiology, Exercise Physiology  Dissertation title: *TBD* | Spring 2023  (expected) |
| Mikaela Webb | Primary Advisor | PhD in Nutritional Sciences  Dissertation title: *TBD* | Spring 2025  (expected) |
| Kevin Paulussen | Dissertation Committee member | PhD in Kinesiology; Exercise Physiology  Dissertation title: *The effect of food matrix modulations on human protein metabolism* | Spring 2022  (expected) |
| Jade Hamman | Thesis Committee member | MS in Nutritional Sciences  Thesis title: *Relationship between diet quality and molecular health mediators of muscle health* | Spring 2022 (expected) |
| Andy Askow | Dissertation Committee member | PhD in Kinesiology; Exercise Physiology  Dissertation title: *TBD* | Spring 2023  (expected) |
| Noah Hutchinson | Dissertation Committee member | PhD in Kinesiology; Exercise Physiology  Dissertation title: *TBD* | Spring 2024  (expected) |
| Richard Kesler | Dissertation Committee member | PhD in Kinesiology; Exercise Physiology  Dissertation title: *TBD* | Spring 2023 (expected) |

2020-22 Professor and Lecturer. University of Illinois at Urbana-Champaign. Kinesiology 352: Bioenergetics of Human Movement, Kinesiology 470: Exercise Endocrinology, Kinesiology 557: Stress Immunology

2020-22 Mentor for Undergraduate Research. University of Illinois at Urbana-Champaign. Kinesiology 385: Experience in Kinesiology Research.

2013-2017 Graduate Teaching Assistant University of Illinois at Urbana-Champaign: Bioenergetics.

2015James Scholar Project Mentor, University of Illinois at Urbana-Champaign.

2013 Guest Lecturer, University of North Carolina at Chapel Hill: Endocrinology.

2011-2013 Graduate Teaching Assistant, University of North Carolina at Chapel Hill: Exercise Biochemistry.

2019 Primary Mentor for the Medical Student Research Scholarship at The Ohio State University Medical School. Mentee: Dante Pezzutti. Title: “The Effects of Stressor-Induced Hormones—Norepinephrine and Epinephrine—on the Immune Response to Bacterial Challenge within the Gastrointestinal Niche”.

2015James Scholar Project Mentor, University of Illinois at Urbana-Champaign.

2013 Guest Lecturer, University of North Carolina at Chapel Hill: Endocrinology.

2011-2013 Graduate Teaching Assistant, University of North Carolina at Chapel Hill: Exercise Biochemistry.

# Service

## Volunteer

2021 Master of Ceremony and Presentation Judge. NSGSA Nutrition Symposium.

2020 Invited Panelist to the APC Ireland Microbiome Postdoc Association panel discussion: ‘How to land a job in Academia’.

2019 Poster Judge, Ohio State Science Fair.

2018-2019 Poster Judge, Undergraduate/Medical Student Research Day, Nationwide Children’s Hospital.

2018-2019 Magic School Bus Learning Program, Nationwide Children’s Hospital Outreach.

2017-2019 21st Century After-School Program, Nationwide Children’s Hospital Outreach.

2012-2013 Get Real and Heel Breast Cancer Program, University of North Carolina at Chapel Hill.

2010-2011 Carolina Covenant Gives Back Scholarship Program, University of North Carolina at Chapel Hill.

## Journal Reviewer

*Cell Host and Microbe*

*Journal of Physiology*

*Journal of Applied Physiology*

*Brain Behavior and Immunity*

*Medicine and Science in Sports and Exercise (MSSE)*

*Plos One*

*FASEB*

*Scientific Reports*

*mSystems*

*Cellular Immunology*

*Nutritional Neurosciences*

*Journal of Gerontology*

*Journal of Physical Activity and Health*