**Curriculum Vitae**

**Heidi Kloefkorn, PhD**
Postdoctoral Fellow
Department of Physiology, School of Medicine
Emory University, Atlanta, GA

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## I. Earned Degrees

| | | |
|---|---|---|
| PhD | **Biomedical Engineering**, Advised by Kyle Allen, PhD<br>University of Florida, Gainesville, Florida | 2011-2016 |
| BS | **Biomedical Engineering**<br>Georgia Institute of Technology, Atlanta, Georgia<br>Dean's List and Honors Program Fellow | 2006-2011 |

## II. Employment History

| | |
|---|---|
| 2021-present | **Assistant Professor.** Department of Chemical, Biological and Environmental Engineering, Oregon State University, Corvallis, OR. |
| 2016-2021 | **Postdoctoral Fellow.** Advised by Shawn Hochman, PhD. Department of Physiology in the School of Medicine. Emory University, Atlanta, GA. |
| 2016-2019 | **NIH FIRST Fellow.** Fellowships in Research and Science Teaching (FIRST) is part of the NIH Institutional Research and Academic Career Development Awards (IRACDA) initiative. Emory University, Atlanta, GA. |
| 2011-2016 | **Graduate Research Assistant.** J. Pruitt Family Department of Biomedical Engineering in the College of Engineering. University of Florida, Gainesville, FL. |
| 2011 | **Research Scientist**. Department of Physiology in the School of Medicine. Emory University, Atlanta, GA. |

## III. Honors, Awards, and Certifications

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|---|---|
| 2018 | **Neurotrauma and Spinal Cord Injury Summer School Training Certification**. International Spinal Research Trust, Glasgow, Scotland. |
| 2018 | **Laboratory Management Training Certification**. Office of Postdoctoral Education, Emory University, Atlanta, GA. |
| 2017 | **Biomedical Engineering Society Career Development Award**. Biomedical Engineering Society, Landover, MD. |
| 2017 | **Controls in Animal Studies for Rigor and Reproducibility Workshop Award**. American Physiological Society. Bethesda, MD. |
| 2016 | **Responsible Conduct of Research Ethics Certification**. Office of Postdoctoral Education. Emory University, Atlanta, GA. |
| 2011-2015 | **Departmental Fellowship Award**. J. Crayton Pruitt Family Department of Biomedical Engineering, University of Florida, Gainesville, FL. |
| 2006-2011 | **Dean's List**. Georgia Institute of Technology, Atlanta, GA. |

## IV. Research, Scholarship, and Technological Development

Underlined names indicate undergraduate co-authors.

Google Scholar profile at https://scholar.google.com/citations?hl=en&user=en06aEcAAAAJ&view_op=list_works

### A. Refereed Publications and Submitted Articles

#### A1. Published and Submitted Journal Articles

1. **Kloefkorn HE**, Aiani LM, Hochman S, Pedersen NP. "Scoring Sleep Using Movement- and Respiration-Based Features" *In Revision at MethodsX*.
2. **Kloefkorn HE**, Aiani LM, Lakhani A, Nagesh S, Moss A, Goolsby W, Rehg JM, Pedersen NP, Hochman S. "Noninvasive Sleep Scoring in Mice using Electric Field Sensors" *Journal of Neuroscience Methods.* 2020;344. https://doi.org/10.1016/j.jneumeth.2020.108834
3. Gurel NZ, Jeong HK, **Kloefkorn HE**, Hochman S, Inan OT. "Unobtrusive Heartbeat Detection from Mice Using Sensors Embedded in the Nest". In: Conference Proceedings: *Annual International Conference of the IEEE Engineering in Medicine and Biology Society*. 2018. doi:10.1109/EMBC.2018.8512611
4. Jeong HK, Gurel NZ, **Kloefkorn HE**, Hochman S, Inan OT. "Performance of Unobtrusive Detection of High Frequency Heart Rate Variability in Mice Using an Instrumented Nest". *In: IEEE Life Sciences Conference*. 2018.
5. **Kloefkorn HE**, Jacobs BY, Xie DF, Allen KD. "A graphic user interface for the evaluation of knee osteoarthritis (GEKO): an open-source tool for histological grading". *Osteoarthr Cartil*. 2019;27(1):114-117. doi:10.1016/j.joca.2018.09.005
6. Yarmola EG, Shah YY, **Kloefkorn HE**, Dobson J, Allen KD. "Comparing intra-articular CTXII levels assessed via magnetic capture or lavage in a rat knee osteoarthritis model". *Osteoarthr Cartil*. 2017;25(7):1189-1194. doi:10.1016/j.joca.2017.01.009
7. **Kloefkorn HE**, Pettengill TR, Turner SM, Streeter KA, Gonzalez-Rothi EJ, Fuller DD, Allen KD. "Automated Gait Analysis Through Hues and Areas (AGATHA): A Method to Characterize the Spatiotemporal Pattern of Rat Gait". Ann Biomed Eng. 2016:1-15. doi:10.1007/s10439-016-1717-0
8. **Kloefkorn HE**, Allen KD. "Quantitative histological grading methods to assess subchondral bone and synovium changes subsequent to medial meniscus transection in the rat". *Connect Tissue Res*. 2016;00(00):1-13. doi:10.1080/03008207.2016.1251425
9. Rohrs EL, **Kloefkorn HE**, Lakes EH, Jacobs BY, Neubert HK, Caudle RM, Allen KD. "A novel operant-based behavioral assay of mechanical allodynia in the orofacial region of rats". *J Neurosci Methods*. 2015;248:1-6. doi:10.1016/j.jneumeth.2015.03.022
10. **Kloefkorn HE**, Jacobs BY, Loye AM, Allen KD. "Spatiotemporal gait compensations following medial collateral ligament and medial meniscus injury in the rat: correlating gait patterns to joint damage". *Arthritis Res Ther*. 2015;17(1):287. doi:10.1186/s13075-015-0791-2
11. Jacobs BY, **Kloefkorn HE**, Allen KD. "Gait analysis methods for rodent models of osteoarthritis". Curr Pain *Headache Rep*. 2014;18(10):456. doi:10.1007/s11916-014-0456-x
12. Franco JA, **Kloefkorn HE**, Hochman S, Wilkinson KA. "An in vitro adult mouse muscle-nerve preparation for studying the firing properties of muscle afferents". *J Vis Exp*. 2014;(91):51948. doi:10.3791/51948
13. Wilkinson KA, **Kloefkorn HE**, Hochman S. "Characterization of muscle spindle afferents in the adult mouse using an in vitro muscle-nerve preparation". *PLoS One*. 2012;7(6):e39140. doi:10.1371/journal.pone.0039140

**A2. Published Conference Abstracts**

1. **Kloefkorn HE**, Idlett, S, Halder M, Hochman S. "Spinal Contusion Injury Induces Long Lasting Changes in Home Cage Activity and Respiration which Correlate with Spontaneous and Evoked Indices of Neuropathic Pain" *FASEB Journal*. April 2018. Vol. 32, Issue 1, Supplement S.
2. **Kloefkorn HE** and Allen KD, "A Graphic User Interface for the Assessment of Knee Osteoarthritis According to the OARSI Histological Scheme for the Rat" Osteoarthritis and Cartilage. April 2016. Vol. 24, Supplement 1. Page S378.
3. Yarmola EG, Shah YY, **Kloefkorn HE**, Dobson J, Allen KD. Intra-articular Magnetic Capture Increases the Detection Sensitivity of CTXII within the Rat Knee." Osteoarthritis and Cartilage. April 2016. Vol. 24, Supplement 1. Page S86.
4. **Kloefkorn HE** and Allen KD, "Histological Changes in the Subchondral Bone and Synovium Relate to Heightened Limb Sensitivity in a Rat OA Model" Osteoarthritis and Cartilage. April 2015. Vol. 23. Supplement 2. Page A317.
5. **Kloefkorn HE**, Jacobs BL, Loye AY, and Allen KD, "Correlating Histological Changes to Behavioral Changes in a Rodent Model of Post-traumatic Knee OA" Osteoarthritis and Cartilage. April 2014. Vol. 22. Supplement S. Page S405.
6. **Kloefkorn HE**, Jacobs BL, Loye AY, and Allen KD, "Medial meniscus transection in the rat results in modified ground reaction forces and subsequent development of knee OA." Osteoarthritis and Cartilage. April 2013. Vol. 21. Supplement S. Page S67.
7. Wilkinson K, **Kloefkorn HE**, Hochman S. "Characterization of adult mouse muscle spindle afferents in an in vitro isolated muscle nerve preparation." FASEB Journal. April 2011. Vol. 25.

**B. Technological Development and Patents**

1) **US patent application 16/095906**. "Systems, Methods, and Computer Readable Media for Non-Contact Physio-Behavioral Monitoring of a Subject" October 23, 2018.
2) **Graphic User Interface for the Evaluation of Knee Osteoarthritis (GEKO)** – associated with publication #8 above (Kloefkorn, Connective Tissue Eng 2016). Available for download at http://www.orthobme.com/resources.html.
   a) *Description:* GEKO is an open source, MATLAB-based GUI used to perform histological grading according to the field standard created by the Osteoarthritis Research Society International. GEKO can be used to:
   b) reduce grading time;
   c) teach researchers to perform histological grading; and
   d) assess intra- and inter-grader variability.
3) **Automated Gait Analysis Through Hues and Areas (AGATHA)** – associated with publication #7 above (Kloefkorn, Annals of BME, 2016). Available for download at http://www.orthobme.com/resources.html.
   a) *Description:* AGATHA is an open source, MATLAB-based program used to automatically calculate spatiotemporal gait characteristics from videos of rodents walking or running.
4) **Lewis Rat Gait Characteristics Database** – associated with publication #10 above (Kloefkorn, Arthritis Res and Ther, 2015). Available for download at bme.ufl.edu/labs/allen.
   a) *Description:* This database currently includes 330 gait trials collected in 38 different naïve Lewis rats at 59 different weights over a period of 10 years. This living database can be used to compare gait control groups across research labs and is intended to help reduce experimental animal numbers.

**C. Poster Presentations**

(Underlined indicates mentored undergraduate research)

1. **Kloefkorn HE**, Idlett S, Halder M, Goolsby W, Aiani LM, Pedersen NP, Hochman S. (2018) "Changes in sleep architecture, respiratory behavior, and indices of pain correlate after thoracic spinal cord contusion" Society for Neuroscience Annual Meeting, November 3-7, San Diego, CA.
2. **Kloefkorn HE**, Idlett S, Halder M, Goolsby W, Aiani L, Pedersen N, Hochman S. (2018) "Indices of Pain correlate with Changes in sleep Architecture and Respiratory Behavior after Thoracic Spinal Cord Contusion" Neurotrauma and Spinal Cord Injury Summer School. Wings for Life and International Spinal Research Trust. July 1-6. Glasgow, Scotland.
3. **Kloefkorn HE**, Idlett S, Halder M, Goolsby W, Hochman S. (2018), "Spinal contusion injury induces long-lasting changes in home cage activity and respiration that correlate with spontaneous and evoked indices of neuropathic pain" Experimental Biology Annual National Conference, April 21-25, San Diego, CA.
4. **Kloefkorn HE**, MacDowell C, Sawchuk M, Goolsby W, Halder M, Hochman S. (2017), "Characterizing sleep state respiration changes after spinal cord injury using non-contact electric field sensors" Society for Neuroscience Annual Meeting, November 11-15, Washington, D.C.
5. **Kloefkorn HE**, Lopez A, Goolsby W, Sawchuk M, Halder M, Hochman S. (2017), "Electric Field Sensors in Mouse Home-Cage Detect Activity and Respiration Changes After Nerve Injury" Annual Meeting of the Biomedical Engineering Society, October 11-14, Phoenix, AZ.
6. **Kloefkorn HE**, MacDowell C, McKinnon M, Goolsby W, Sawchuk M, Hochman S. (2017), "Detecting Changes in Rodent Motor Behavior and Respiration after Spinal Cord Injury Using Non-invasive Instrumented Vivariums" Institutional Research and Academic Career Development Awards Annual Meeting. June 4-6, Birmingham, AL.
7. **Kloefkorn HE** and Allen KD (2016), "Quantitative Histological Measures of Bone and Synovium Correlate with Behavior in a Rat Model of OA" Annual Meeting of the Biomedical Engineering Society, October 5-8, Minneapolis, MN.
8. Berko J, **Kloefkorn HE,** Allen KD (2016) "Effects of Grader Skill Level on Measurement Variability" Annual Meeting of the Biomedical Engineering Society, October 5-8, Minneapolis, MN.
9. **Kloefkorn HE** and Allen KD (2016, Abstract), "A Graphic User Interface for the Assessment of Knee Osteoarthritis According to the OARSI Histological Scheme for the Rat" Osteoarthritis Research Society International, World Congress on Osteoarthritis, March 31-April 3, Amsterdam, NE.
10. Lopez AJ, Sawchuck M, **Kloefkorn, HE**, Hochman S (2016), "Electric Field Sensors Detect Physiological Changes in Adult Mice with Nerve-Injury-Induced Neuropathic Pain" Summer Undergraduate Research Experience (SURE) Program Research Day, Atlanta, GA.
11. **Kloefkorn HE** and Allen KD (2016), "Histological Changes in Synovial Tissue and Subchondral Bone Correlate to Tactile Sensitivity in a Rat Medial Meniscus Transection Model of Knee Osteoarthritis" Orthopedic Research Society, March 5-8, Orlando, FL.
12. Yarmola EG, Shah YY, **Kloefkorn HE**, Dobson J, Allen KD (2016). Intra-articular Magnetic Capture Increases the Detection Sensitivity of CTXII within the Rat Knee." Osteoarthritis Research Society International, World Congress on Osteoarthritis, March 31-April 3, Amsterdam, NE.
13. **Kloefkorn HE**, and Allen KD (2015) "Changes in Synovium and Subchondral Bone Correlate with Heightened Limb Sensitivity in a Rat Model of Post-Traumatic Osteoarthritis", J. Crayton Pruitt Family Research Day, J Crayton Pruitt Family Department of Biomedical Engineering, University of Florida, November 13, Gainesville, FL.
14. **Kloefkorn HE** and Allen KD (2015), "Histological Changes in the Subchondral Bone and Synovium Relate to Heightened Limb Sensitivity in a Rat OA Model" Osteoarthritis Research Society International, World Congress on Osteoarthritis, April 30-May 3, Seattle, WA.
15. **Kloefkorn HE**, Jacobs BL, and Allen KD (2014), "Testing Efficacy of Pain Management Therapies in a rodent Model of Post-Traumatic Knee Osteoarthritis" Annual Meeting of the Biomedical Engineering Society, October 22-25, San Antonio, TX.

16. **Kloefkorn HE**, Jacobs BL, Loye AY, and Allen KD (2014), "Associating Joint Histological Changes to Gait Abnormalities and Mechanical Sensitivity in a Rat Model of Post-traumatic Knee Osteoarthritis" Orthopedic Research Society, March 15-18, New Orleans, LA.
17. **Kloefkorn HE**, Jacobs BL, Loye AY, and Allen KD (2014), "Correlating Histological Changes to Behavioral Changes in a Rodent Model of Post-traumatic Knee OA" Osteoarthritis Research Society International, World Congress on Osteoarthritis, April 24-27, Paris, France.
18. **Kloefkorn HE**, Jacobs BL, Loye AY, and Allen KD (2013), "Medial meniscus transection in the rat results in modified ground reaction forces and subsequent development of knee OA." Osteoarthritis Research Society International, World Congress on Osteoarthritis, April 18-21, Philadelphia, PA.
19. **Kloefkorn HE**, Jacobs BL, Loye AY, and Allen KD (2013), "Dynamic gait compensations in a rat model of osteoarthritis." Orthopedic Research Society, January 26-29, San Antonio, TX.
20. Jacobs BL, Loye AY, **Kloefkorn HE**, and Allen KD (2012), "Assessing changes in ground reaction forces in a rat model of knee osteoarthritis." Annual Meeting of the Biomedical Engineering Society, October 24-27, Atlanta, GA.
21. Loye AY, Jacobs BL, **Kloefkorn HE**, and Allen KD (2012), "Does touch sensitivity correlate to gait abnormalities in a rodent model of knee osteoarthritis?" Annual Meeting of the Biomedical Engineering Society, October 24-27, Atlanta, GA.
22. Wilkinson K, **Kloefkorn HE**, Hochman S. (2011) "Characterization of adult mouse muscle spindle afferents in an in vitro isolated muscle nerve preparation." Experimental Biology Annual Meeting, April 9-13, 2011. Washington, DC

## D. Presentations

### D1. Conference Presentations

(italics indicates mentored undergraduate research)

1. **Kloefkorn HE**, Aiani LM, Goolsby W, Pedersen NP, Hochman S. (2018, Podium) "Quantifying Sleep Architecture Through Respiratory Behavior Using Non-Contact Electric Field Sensors" Annual Meeting of the Biomedical Engineering Society, October 17-20, Atlanta, GA.
2. *Jordano J*, **Kloefkorn HE**, Goolsby W, Martin K, Hochman S. (2018, Mentored Undergraduate Presentation) "Respiration Rate Variability Correlates with Mechanical Sensitivity in a Mouse Model of Inflammatory Pain." Annual Meeting of the Biomedical Engineering Society, October 17-20, Atlanta, GA.
3. **Kloefkorn HE**, Idlett S, Halder M, Goolsby W, Hochman S. (2018, Invited Podium), "Spinal contusion injury induces long-lasting changes in home cage activity and respiration that correlate with spontaneous and evoked indices of neuropathic pain" NCARnation Session Competition at Experimental Biology Annual National Conference, April 21-25, San Diego, CA
4. **Kloefkorn HE**, and Allen KD (2015, Podium) "Quantifying Rodent Locomotion Using Automated Gait Analysis Through Hues and Areas (AGATHA)", Annual Meeting of the Biomedical Engineering Society, October 7-10, Tampa, FL.
5. **Kloefkorn HE**, Jacobs BL, Loye AY, and Allen KD (2013, Podium) "Associating Gait Abnormalities to Histological Features of Joint Destruction in a Rat Model of Knee Osteoarthritis", Annual Meeting of the Biomedical Engineering Society, September 25-28, Seattle WA.

### D2. Invited and Institutional Presentations

1. **Kloefkorn HE** (2020, Invited Panelist), "Alumni Connect: Careers in BME" J. Crayton Pruitt Family Department of Biomedical Engineering, University of Florida, November 6, 2020. Virtual event moderated from Gainesville, FL.

2. **Kloefkorn HE** (2019, Invited Seminar), "Graduate School: To Go or Not To Go (And How to Get There)" Georgia Institute of Technology Alumni Networking Day, Georgia Institute of Technology, September 8, 2019. Atlanta, GA.
3. **Kloefkorn HE** (2018, Institutional Presentation), "Preclinical Sleep: Assessment Methods" Sleep Basic Science Multi-Lab Seminar Series, Emory University, September 24, 2018, Atlanta, GA.
4. **Kloefkorn HE** (2018, Institutional Presentation), "Undercover Technology: Quantifying Injury Pathophysiology from Beyond the Cage" Seminars in Integrative Neurosciences Series, Department of Physiology, Emory University, April 18, Atlanta, GA.
5. **Kloefkorn HE** (2018, Institutional Presentation), "Using Electric Field Sensors to Quantify Rodent Respiratory and Sleep Behavior" Fellowships in Research and Science Teaching Seminar Series, Department of Biology, Emory University, April 11, Atlanta, GA.
6. **Kloefkorn HE** (2016, Institutional Presentation), "Examining the Nexus Amongst Joint Degeneration, Disability, and Chronic Pain Using a Rodent Model of Post-Traumatic Knee OA" Seminars in Integrative Neurosciences Series, Department of Physiology, Emory University, October 28, Atlanta, GA.
7. **Kloefkorn HE** and Allen KD (2016, Invited Seminar), "GUI for the Evaluation of Knee OA (GEKO)" Invited by Dr. Nicholas Willett and the Willett Regenerative Laboratory, Atlanta VA Hospital, May 30, Atlanta, GA.
8. **Kloefkorn HE**, Jacobs BL, Loye AY, and Allen KD (2013, Institutional Presentation) "Correlating Disease Pathogenesis with Behavioral Symptoms in a Rat Model of Knee Osteoarthritis", J. Crayton Pruitt Family Research Day, J Crayton Pruitt Family Department of Biomedical Engineering, University of Florida, November 16, Gainesville, FL.

## V. Teaching

### A. Courses

#### A1. Post-Graduate and Professional Level Teaching

2017 **Guest Lecturer.** FIRST Program "Course on How to Teach a Class". 8 Students. Emory University, Atlanta, GA.

#### A2. Graduate Level Teaching

2019 **Instructor.** "MATLAB: Fundamentals and Application for Scientists". 6 Students. Emory University, Atlanta, GA.

#### A3. Undergraduate Level Teaching

2021 **Guest Lecture.** Deriving Kinematic Equations for Rectilinear Motion. 20 Students. College of Physics and Engineering. West Chester University, Virtually moderated.

2021 **Guest Lecture.** Bioelectricity and Neuroplasticity. 40 Students. Department of Chemical, Biological, and Environmental Engineering. Oregon State University, Virtually moderated.

2020 **Guest Lecture.** Mass and Energy Balances II. 18 Students. Department of Chemical, Paper and Biomedical Engineering. Miami University, Oxford, OH.

2018 **Instructor.** General Biology for Science Majors. 48 Students. Department of Biology. Morehouse College, Atlanta, GA.

2018 **Lab Instructor.** Lab section for General Biology for Science Majors. 24 Students. Department of Biology. Morehouse College, Atlanta, GA.

2014 **Guest Lecturer.** Computer Applications for Biomedical Engineers. 20 Students. Department of Biomedical Engineering. University of Florida, Gainesville, FL.

2013 **Teaching Assistant.** Biomedical Engineering Fundamentals. 40 Students. Department of Biomedical Engineering. University of Florida, Gainesville, FL.

2012 **Teaching Assistant**. Introduction to Biomedical Engineering. 100 Students. Department of Biomedical Engineering. University of Florida, Gainesville, FL**.**

2011 **Teaching Assistant.** Introduction to BME Design. 24 Students. Department of Biomedical Engineering. Georgia Institute of Technology, Atlanta, GA.

## B. Individual Student Mentoring

### B1. MD and PhD Students

2019-2020 **Mallika Halder**. Emory University, Atlanta, GA.

- Project: Characterizing modifiable features of spike propagation in sympathetic preganglionics

2017-2020 **Shaquia Idlett.** Emory University and Georgia Institute of Technology, Atlanta, GA.

- Project: Exploring the relationship between afferent maladaptation and behavioral changes after spinal cord injury

2016-2019 **Nil Gurel.** Georgia Institute of Technology, Atlanta, GA.

- Project: Developing noninvasive ballistocardiogram embedded in mouse nest

2016-2019 **Hyeon Ki Jeong.** Georgia Institute of Technology, Atlanta, GA.

- Project: Measuring mouse heart rate using dopplar embedded in mouse nest

2016-2019 **Supriya Nagesh.** Georgia Institute of Technology, Atlanta, GA.

- Project: Developing automated sleep scoring using machine learning

2017 **Charles Ford IV.** Emory University, Atlanta, GA.

- Project: Detecting mouse heart rate using noninvasive electric field sensors

### B2. MS Students

2013-2014 **Katherine Dunnigan, MS.** University of Florida, Gainesville, FL.

- Project: Developing histology methods for assessing knee osteoarthritis

2013 **Krishanu Mathur, MS.** University of Florida, Gainesville, FL.

- Project: Measuring hind paw weight imbalance in rats with knee osteoarthritis

2013 **Ramchand Mirchandani, MS**. University of Florida, Gainesville, FL.

- Project: Measuring hind paw weight imbalance in rats with knee osteoarthritis

### B3. Undergraduate Students

2021-present **Austin Chuang**, Emory University, Atlanta, GA.

2020 **Annalise Ballou**, Georgia Institute of Technology, Atlanta, GA.

2018-2019 **Ankita Moss**, Emory University, Atlanta, GA.

- Poster: "Electric Field Sensors Detect Physiological Changes in Adult Mice with Nerve-Injury-Induced Neuropathic Pain." Summer Undergraduate Research Experience (SURE) Program. Physiology Department, Emory University. Atlanta, GA.

2018-2019 **James Jordano.** Emory University, Atlanta, GA.
- Conference Oral Presentation: "Respiration Rate Variability Correlates with Mechanical Sensitivity in a Mouse Model of Inflammatory Pain." Annual Meeting of the Biomedical Engineering Society, October 17-20, Atlanta, GA
- Honors Thesis: "Respiration Features Reflect Stress and Inflammatory Pain Conditions in Mice" Biology Department, Emory University, Atlanta, GA
- Abstract: "The Effect of Induced Inflammatory Pain on Respiration Variance in Mice: A Pilot Study" Emory SIRE Program Spring Undergraduate Research Symposium. Physiology Department, Emory University. Atlanta, GA.

2017 **Brenden Downing.** Georgia Institute of Technology, Atlanta, GA.

2016-2018 **Abigail Bacharach.** Emory University, Atlanta, GA.

2016 **Alejandro Lopez.** Emory University, Atlanta, GA.
- Poster: "Electric Field Sensors Detect Physiological Changes in Adult Mice with Nerve-Injury-Induced Neuropathic Pain." Summer Undergraduate Research Experience (SURE) Program. Physiology Department, Emory University. Atlanta, GA.
- Conference Oral Presentation: "Electric Field Sensors Detect Physiological Changes in Adult Mice with Nerve-Injury-Induced Neuropathic Pain." Annual Biomedical Research Conference for Minority Students, 2016. Tampa, FL.

2016 **Samantha Haus.** University of Florida, Gainesville, FL.

2015 **Chad Jones.** University of Florida, Gainesville, FL.

2015-2016 **Joshua Berko.** University of Florida, Gainesville, FL.
- Conference Poster: "Effects of Grader Skill Level on Measurement Variability in Histological Grading of Rodent Knee Osteoarthritis" Annual Meeting of the Biomedical Engineering Society 2016. Minneapolis, MN.

2014-2015 **Jelisha Wolcott.** University of Florida, Gainesville, FL.

2014-2015 **Samantha Beekhuizen, MS.** University of Florida, Gainesville, FL.

2013 **Ali Jamoos.** University of Florida, Gainesville, FL.

2013-2015 **Andrew Stricklin.** University of Florida, Gainesville, FL.
- Senior Honors Thesis: Development of instrumented rat toy to measure bite force. J. Crayton Pruitt Family Department of Biomedical Engineering, University of Florida, Gainesville, FL.

2012-2013 **Brittany Jacobs, MS.** University of Florida, Gainesville, FL.
- Conference Poster: "Assessing Changes in Ground Reaction Forces in a Rat Model of Knee Osteoarthritis" Annual Meeting of the Biomedical Engineering Society 2012. Atlanta, GA.

2012-2014 **Ayomiposi Loye.** University of Florida, Gainesville, FL.
- Conference Poster: "Does Touch Sensitivity Correlate to Gait Abnormalities in a Rodent Model of Knee Osteoarthritis?" Annual Meeting of the Biomedical Engineering Society 2012. Atlanta, GA.

**B4. High School Students**

2016 **Valentina Tafurt.** Center for Precollegiate Education and Training. University of Florida, Gainesville, FL.

2015 **Daniel Xi.** Center for Precollegiate Education and Training. University of Florida, Gainesville, FL.

2015 **Braden Yang.** University of Florida, Gainesville, FL.

### C. Continuing Education

2021 **Developing Socio-Emotional Intelligence.** Office of Postdoctoral Education. Emory University. Atlanta, GA.

2021 **Gaining Self-Awareness and Awareness in Others.** Office of Postdoctoral Education Leadership Series. Emory University. Atlanta, GA.

2020 **Showcase on Blended and Hybrid Courses.** Office of Postdoctoral Education. Emory University. Atlanta, GA.

2020 **Uncovering and Managing Implicit Bias.** Office of Postdoctoral Education. Emory University. Atlanta, GA.

2018 **Building and Managing Your First Research Team.** Georgia Clinical and Translational Science Alliance (CTSA). Georgia Institute of Technology. Atlanta, GA.

2018 **Lab Management Course.** Office of Postdoctoral Education. Emory University. Atlanta, GA.

2017-2018 **Workshop on Media and Active Learning in the Classroom**. The Howard Hughes Medical Institute presented at IRACDA. Birmingham, AL.

2017 **Workshop on Controls in Animal Studies for Rigor and Reproducibility**. American Physiological Society. Bethesda, MD.

2017 **The Course on How to Teach a Course.** Fellowships in Research and Science Teaching. Emory University, Atlanta, GA.

2016 **Responsible Conduct of Research Ethics**. Office of Postdoctoral Education. Emory University, Atlanta, GA.

## Vi. <u>Service</u>

### A. Professional Societies

2017-present **American Physiological Society.** Member.

2017-present **Society for Neuroscience.** Member.

2016-present **Emory University Postdoctoral Association.** Member.

2016-present **Order of the Engineer.** Member.

2012-present **Biomedical Engineering Society.** Member.

2012-2016 **Orthopaedic Research Society.** Member.

2012-2016 **Osteoarthritis Research Society International.** Member.

2011-2016 **Graduate Students United.** Member. University of Florida, Gainesville, FL.

### B. Committee Memberships

2018-2019 **FIRST Program Executive Committee**. Member.

2017 **2017 Postdoctoral Research Symposium Committee.** Member.

2017-2018 **2018 IRACDA Conference Planning Committee.** Member of the Communications Committee and Sessions Committee.

### C. Outreach

2016-present **NIH National Research Mentoring Network.** Bethesda, MD.

2018-2019 **Emory Citizen Scientist Booth Co-Administrator for Atlanta Science Festival.** Atlanta, GA.
2017 **Poster Judge.** Emory SIRE Program Spring Undergraduate Research Symposium. Atlanta, GA.
2017 **Oral Presentation Judge.** Spelman College Research Day. Atlanta, GA.
2017-2018 **Regional Science Fair Judge.** Rockdale Magnet School. Rockdale, GA.