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EDUCATION AND TRAINING

Education

- Postdoctoral Training **Vanderbilt University**, Molecular Physiology and Biophysics 2018-2023
Research Focus: Do adipose macrophages remember obesity? Innate immune memory in weight cycling. Research Mentor: Alyssa Hasty, PhD
- PhD **Virginia Commonwealth University**, Integrative Life Sciences 2014-2018
Dissertation: Glycolytic ATP production is required for innate mast cell activation and is limited by lactic acid, which effectively reduces LPS-induced cytokine production in mast cells and in vivo. Research Mentor: John J. Ryan, PhD
- MS **Virginia Commonwealth University**, Health and Movement Science 2012-2014
Thesis: The Effect of Obesity on IL-1 β , IL-1Ra, and leptin following acute mental stress
Research Mentor: R. Lee Franco PhDg
- BS **Virginia Commonwealth University**, Exercise Science 2008-2012
Magna Cum Laude, University Honors, Minor: Psychologyhhhh

ACADEMIC POSITIONS, CERTIFICATIONS, and HONORS

Academic Positions

- 2023- present **Assistant Professor**, Health and Human Performance, University of Houston
- 2018-2023 **Postdoctoral Research Fellow**, Molecular Physiology and Biophysics, Vanderbilt University
- 2014-2018 **Graduate Research Assistant**, Life Sciences and Biology, Virginia Commonwealth University
- 2013-2014 **Graduate Teaching Assistant**, Kinesiology and Health Sciences, Virginia Commonwealth University
- 2012-2013 **Graduate Research Assistant**, Physical Medicine and Rehabilitation, Virginia Commonwealth University

Certifications

- 2012-current ACSM Certified Exercise Physiologist
- 2004-current CPR certified (AHA BLS through 9/2025; ARC through 8/2027)

Awards

2023	Vanderbilt VI4 Outstanding Postdoctoral Trainee
2022	AAI-Thermo Fisher Trainee Achievement Award
2018	VCU Biology Outstanding Graduate Student, Cell and Molecular Biology
2013	Phi Kappa Phi Graduate Scholarship, School of Education
2011	Professional and Academic Excellence in Exercise Science Award
2008-2012	VCU Dean's Scholarship

RESEARCH PRODUCTIVITY

Peer Reviewed Publications

*first, last, or corresponding author

^student participation, † direct mentee

31. Garcia J.N., Cottam M.A., Rodriguez A.S., Hussein Agha A.F., **Caslin H.L.**, Winn N.C., Hasty A.H. Interrupting T cell memory ameliorates exaggerated metabolic response to weight cycling. *Diabetes*. 2026 Feb 17:db250605. doi: [10.2337/db25-0605](https://doi.org/10.2337/db25-0605) (IF: 7.5)

* 30. **Caslin H.L.**, Williams J.W. Mechanisms of innate immune modulation by high fat diet: implications for obesity and asthma. *Current Allergy and Asthma Reports*. 2025 Nov. 25, 51. doi: [10.1007/s11882-025-01232-7](https://doi.org/10.1007/s11882-025-01232-7) (IF: 4.6)

Invited review, corresponding author

*^ 29. **Caslin H.L.**[#], Kapadia M.[†], Clemons T.A.[#] Mast cell immunometabolism in type 2 diabetes and Alzheimer's disease. *Journal of Cellular Physiology*. 2025 Sept. 240(9):e70091. doi: [10.1002/jcp.70091](https://doi.org/10.1002/jcp.70091)
[#]co-corresponding authorship (IF: 4.0)

*^ 28. Bolden III M.[†], Davis X.D., Kapadia, M. †, Nguyen, E. †, Sherwood D.R., Bohannon J.K., **Caslin H.L.** Weight loss-induced adipose macrophage memory corresponds with lower adipose bacterial burden in murine systemic Staphylococcus aureus infection. *Shock*, 2025 June. 63(6):p 919-928. doi: [10.1097/SHK.0000000000002575](https://doi.org/10.1097/SHK.0000000000002575) (IF: 2.9, Shock Society Journal)

27. Kohutek Z.A., **Caslin H.L.**, Fehrenbach D.J, Heimlich J.B., Brown J.D., Madhur M.S., Ferrell P.B., and Doran A.C. The bone marrow as an emerging target for the treatment of cardiometabolic disease. *Circulation Research*, 2025 Jan 31; 136(3)325-353. doi: [10.1161/CIRCRESAHA.124.323778](https://doi.org/10.1161/CIRCRESAHA.124.323778) (IF: 16.2, American Heart Association Society Journal)

26. Taruselli M.T., Qayum A.A., Abeyayehu D., **Caslin H.L.**, Daily, J.M., Kotha A., Burchett J.R., Kee S.A., Maldonado T.D., Ren B., Chao W., Zou L., Haque T.T., Straus D., Ryan J.J. IL-33 induces cellular and exosomal miR-146a expression as a feedback inhibitor of mast cell function. *Journal of Immunology*. 2024 Feb 21:ji2200916. doi: [10.4049/jimmunol.2200916](https://doi.org/10.4049/jimmunol.2200916) (IF: 3.4, American Association of Immunologists Society Journal)

* 25. **Caslin H.L.**[#], Bolus W.R.[#], Norlander A.E., Thomas C., Toki S., Peebles R.S., Hasty A.H. Bovine serum albumin elicits IL-33-dependent adipose tissue eosinophilia: potential relevance for allergic disease. *Immunohorizons*. 2023 Dec 1;7(12):842-852. doi: [10.4049/immunohorizons.2300061](https://doi.org/10.4049/immunohorizons.2300061)
(American Association of Immunologists Society Journal) [#]co-first authorship

24. Schleh M.W., **Caslin H.L.**, Garcia J.N, Mashayekhi M, Srivastava G., Bradley A.B., Hasty A.H. Metaflammation in obesity and its therapeutic targeting. *Science Translational Medicine*. 2023 Nov 22;15(723): eadf9382. doi: [10.1126/scitranslmed.adf9382](https://doi.org/10.1126/scitranslmed.adf9382) (IF: 14.7, American Association for the Advancement of Science Society Journal)

--Started as Assistant Professor at UH--

*^ 23. **Caslin H.L.**, Cottam M.A., Piñon J.M.[†], Boney L.Y.[†], Hasty, A.H. Weight cycling induces innate immune memory in adipose tissue macrophages. *Frontiers in Immunology*. 2023 Jan 11; 13. [doi: 10.3389/fimmu.2022.984859](https://doi.org/10.3389/fimmu.2022.984859) (IF: 5.9, International Union of Immunological Societies Journal)

22. Blanks A.M., Pedersen L.N, **Caslin H.L.**, Mihalick V.L., Via J., Canada J.M., Van Tassell B., Carbone S., Abbate A., Franco R.L. LPS Differentially Affects Expression of CD14 and CCR2 in Monocyte Subsets of Post-STEMI Patients with Impaired Glucose. *Diabetes Research and Clinical Practice*. 2022 Sep; 191:110077. [doi: 10.1016/j.diabres.2022.110077](https://doi.org/10.1016/j.diabres.2022.110077) (IF: 7.4)

21. Winn N.C.[#], Cottam M.A.[#], Bhanot M., **Caslin H.L.**, Garcia J.N., Arrojo E Drigo R, Hasty A.H. Weight cycling impairs pancreatic insulin secretion but does not perturb whole-body insulin action in diet-induced obese mice. *Diabetes*. 2022 Jul 8;db220161. [doi: 10.2337/db22-0161](https://doi.org/10.2337/db22-0161) (IF: 7.5, American Diabetes Association Society Journal) ^{#co-first author}

* 20. Cottam M.A.[#], **Caslin H.L.**[#], Winn N.C., Hasty A.H. Multiomics reveals persistence of obesity-associated immune cell phenotypes during weight loss and subsequent weight regain. *Nature Communications*. 2022 May 26;13(1):2950. [doi: 10.1038/s41467-022-30646-4](https://doi.org/10.1038/s41467-022-30646-4) (IF: 15.7) ^{#co-first authorship}

19. Taruselli M.T., Kolawole E.M., Qayum A.A., Haque T., **Caslin H.L.**, Ababayehu D., Keeb S.A., Daileya J., Jackson K., Spence A.J., Pondicherry N., Barnstein B.O., Gomez G., Straus D.B., Ryan J.J. Fluvastatin Enhances IL-33-mediated Mast Cell IL-6 and TNF Production. *Cellular Immunology*. 2021 Nov 24;371:104457. [doi: 10.1016/j.cellimm.2021.104457](https://doi.org/10.1016/j.cellimm.2021.104457) (IF 2.9)

*18. **Caslin H.L.**, Ababayehu D., Pinette J.A., Ryan J.J. Not solely a metabolic by-product, lactate shapes immune cell fate and function. *Frontiers in Physiology*. 2021 Oct; 12. [doi: 10.3389/fphys.2021.688485](https://doi.org/10.3389/fphys.2021.688485) (IF: 3.4)
Invited review, corresponding author

17. Kouame E., Noel J.C., Wane M., Babdor J., **Caslin H.L.**, Fan A., Mbiribindi B., Sattler S., Mobley A.S. Black in Immuno Week: Who We Are, What We Did, and Why It Matters. *Journal of Immunology*. 2021; 207 (8). [doi: 10.4049/jimmunol.2100667](https://doi.org/10.4049/jimmunol.2100667) (IF: 3.4, American Association of Immunologists Society Journal)

^ 16. Tennent N.S.[†], **Caslin H.L.**, Cottam M.A., Hasty A.H. Adipose Tissue Macrophage Transcriptome Suggest Trained Innate Immunity Formation in Response to Weight Cycling. *Young Scientist Journal*. May 2021. [Link](#).

15. Paez P.A, Kolawole E.M, Taruselli M.T, Ajith S, Dailey J.M, Kee S.A, Haque T.T, Barnstein B.O, McLeod J.J.A., **Caslin H.L.**, Kiwanuka K.N, Fukuoka Y, Le Q.T, Schwartz L.B, Straus D.B, Gewirtz D.A, Martin R.K, Ryan J.J. Fluvastatin Induces Apoptosis in Primary and Transformed Mast Cells. *Journal of Pharmacology and Experimental Therapeutics*. 2020 May 2; jpet.119.264234. [doi: 10.1124/jpet.119.264234](https://doi.org/10.1124/jpet.119.264234) (IF: 3.8)

* 14. **Caslin H.L.**[#], Bhanot M.[#], Bolus W.R., Hasty A.H. Adipose tissue macrophages: unique polarization and bioenergetics in obesity. *Immunological Reviews*. 2020; 00:1-13. [doi: 10.1111/imir.12853](https://doi.org/10.1111/imir.12853) (IF: 8.3) ^{#co-first authorship}

* 13. **Caslin H.L.** and Hasty A.H. Extrinsic and Intrinsic Immunometabolism Converge: Perspectives on Future Research and Therapeutic Development for Obesity. *Current Obesity Reports*. 2019 Sep;8(3):210-219. [doi: 10.1007/s13679-019-00344-2](https://doi.org/10.1007/s13679-019-00344-2) (IF: 11)

- * 12. **Caslin H.L.**, Abebayehu D., Abdul Qayum A., Paez P.A., Hoferlin L.A., Chalfant C.E., Ryan J.J. Lactic acid limits glycolysis and ATP availability effectively reducing LPS-induced cytokine production in mast cells and in vivo. *Journal of Immunology*. 2019 Jul 15;203(2):453-464. [doi: 10.4049/jimmunol.1801005](https://doi.org/10.4049/jimmunol.1801005) (IF: 3.4, American Association of Immunologists Society Journal)
11. Abebayehu D., Spence A.J., **Caslin H.L.**, Taruselli M.T., Kolawole E.M., Chumanovich A.P., Sell S., Oskeritzian C.A., Ryan J.J. Lactic acid suppresses IgE-mediated mast cell function in vitro and in vivo. *Cellular Immunology*. 2019 Jul;341:103918. [doi: 10.1016/j.cellimm.2019.04.006](https://doi.org/10.1016/j.cellimm.2019.04.006) (IF: 2.9)
- * 10. **Caslin H.L.**, Taruselli M.T., Haque T.T., Pondicherry N., Baldwin E.A., Barnstein B.O., Ryan J.J. Inhibiting glycolysis and ATP production attenuates IL-33-mediated cytokine production in mast cells and IL-33-induced peritonitis. *Frontiers in Immunology*. 2018; 9. [doi:10.3389/fimmu.2018.03026](https://doi.org/10.3389/fimmu.2018.03026) (IF: 5.9, International Union of Immunological Societies)
- * 9. **Caslin H.L.**, Kiwanuka K.N., Haque T.T., Taruselli M.T., MacKnight H.P., Paranjape A., Ryan J.J. Controlling Mast Cell Activation and Homeostasis: Work Influenced by Bill Paul that Continues Today. *Frontiers in Immunology*. 2018 Apr; 9: 868. [doi:10.3389/fimmu.2018.00868](https://doi.org/10.3389/fimmu.2018.00868) (IF: 5.9) International Union of Immunological Societies)
- * 8. McCleod J.#, **Caslin H.L.**#, Spence A.J., Elford H., Ryan J.J. Didox (3,4-dihydroxybenzohydroxamic acid) suppresses IgE-mediated mast cell activation through attenuation of NFκB and AP-1 transcription in primary mouse cells. *Cellular Immunology*. 2017 Dec; 322:41-48. [doi: 10.1016/j.cellimm.2017.09.008](https://doi.org/10.1016/j.cellimm.2017.09.008) (IF: 2.9) #co-first authorship
- * 7. **Caslin H.L.** #, McCleod J.#, Spence A.J., Abdul Qayum A., Kolawole E.M., Taruselli M., Paranjape A., Elford H., Ryan J.J. Didox (3,4-dihydroxybenzohydroxamic acid) suppresses IL-33-induced cytokine production in primary mouse mast cells. *Cellular Immunology*. 2017 Sep; 319:10-16. [doi: 10.1016/j.cellimm.2017.04.013](https://doi.org/10.1016/j.cellimm.2017.04.013) (IF: 2.9) #co-first authorship
6. Ndaw V., Abebayehu D., Spence A.J., Paez P.A., Kolawole E.M., Taruselli M., **Caslin H.L.**, Chumanovich A.P., Paranjape A., Baker B., Barnstein B.O., Haque T.T., Kiwanuka K.N., Oskeritzian C.A., Ryan J.J. TGFβ1 Suppresses IL-33-induced Mast Cell Activation. *Journal of Immunology*. 2017 Aug 1;199(3):866-873. [doi: 10.4049/jimmunol.1601983](https://doi.org/10.4049/jimmunol.1601983) (IF: 3.4, American Association of Immunologists Society Journal)
5. Abebayehu D., Spence A.J., Abdul Qayum A. Taruselli M., McCleod J., **Caslin H.L.**, Kolawole E., Ndaw V., Barnstein B.O., Oskeritzian C.A., Ryan J.J. Lactic acid suppresses IL-33-mediated mast cell inflammatory responses via HIF-1 dependent miR-155 suppression. *Journal of Immunology*. 2016; 197(7):2909-17. [doi: 10.4049/jimmunol.1600651](https://doi.org/10.4049/jimmunol.1600651) (IF: 3.4, American Association of Immunologists Society Journal)
4. Crabb E.B., Franco R.L., **Caslin H.L.**, Blanks A.M., Bowen M.K, Acevedo E.O. The effect of physical and mental stress on soluble adhesion molecule concentrations. *Life Sciences*. 2016 May 31. Pii: S0024-3205(16)30341-1. [doi: 10.1016/j.lfs.2016.05.042](https://doi.org/10.1016/j.lfs.2016.05.042) (IF: 5.1)
3. Abdul Qayum A., Paranjape A., Abebayehu D., Kolawole E.M., Haque T.T., McCleod J.J.A., Spence J.A., **Caslin H.L.**, Baker B., Taruselli M.T., Oskeritzian C.A., Ryan J.J. IL-10-induced miR-155 targets SOCS1 to enhance IgE-mediated mast cell activation and passive systemic anaphylaxis in mice. *Journal of Immunology*. 2016; 196(11):4457-67. [doi: 10.4049/jimmunol.1502240](https://doi.org/10.4049/jimmunol.1502240) (IF: 3.4, American Association of Immunologists Society Journal)

* 2. **Caslin H.L.**, Crabb E.B, Huang C.J., Bowen M.K, Acevedo E.O., Franco R.L. The effect of obesity on inflammatory cytokine and leptin production following acute mental stress. *Psychophysiology*. 2016; 53(2):151-8. [doi: 10.1111/psyp.12568](https://doi.org/10.1111/psyp.12568) (IF: 2.8)

1. Crabb E.B., Bowen M.K, Huang C.J., **Caslin H.L.**, Acevedo E.O., Franco R.L. G protein-coupled receptor kinase-2 in peripheral blood mononuclear cells following acute mental stress. *Life Sciences*. 2016; 145:184-9. [doi: 10.1016/j.lfs.2015.12.035](https://doi.org/10.1016/j.lfs.2015.12.035) (IF: 5.1)

Book Chapters

* 1. **Caslin H.L.**, Taruselli M.T., Paranjape A., Kiwanuka K., Haque T., Oskeritzian C.A., Ryan J.J. The Use of Human and Mouse Mast Cell and Basophil Cultures to Assess Type 2 Inflammation. *Methods in Molecular Biology*. 2018; 1799:81-92. [doi: 10.1007/978-1-4939-7896-0_8](https://doi.org/10.1007/978-1-4939-7896-0_8).

Manuscripts in Review

^ Crane, J.C.^, Hodgman, C.F.^, Hunt, R.M.^, **Caslin, H.L.**, Laughlin, M., Gorniak, S.L., LaVoy, E.C. The Impact of Cardiorespiratory Fitness on Cytotoxic T Cell Function and Metabolism.
Submitted Nov 2025 to *Medicine and Science in Sport and Exercise* (IF: 3.9)

*^ Kapadia M.^†, Betjemann A.M.^†, Cottam M.A., Mashayekhi M., Silver, H.J., Hasty A.H., **Caslin H.L.** Weight cycling induces a novel lipid-associated mast cell population. #co-first authorship
Submitted Sept 2025 to *Scientific Reports* (IF: 3.9)
Preprint: <https://doi.org/10.1101/2023.11.12.566786>

Manuscripts in Preparation

^ Liparulo, I.†, Schleh M.W., Garcia J.N., Kapadia M.†, LaVoy, E.L, Winn N.C, Hasty A.H., Cottam M.A.#, **Caslin H.L.**#. Weight loss drives CD8+ T cell granzyme K production and adipocyte senescence upon weight regain #co-corresponding author
Data collected, writing in progress

^ Oforika, O.K.†, LaVoy, E.C, Kapadia, M.†, Nguyen, E.†, Cottam, M.A., Winn, N.C., **Caslin H.L.** Exercise reduces CD8+ memory T cell exhaustion, but does not lessen glucose tolerance or macrophage inflammation following weight regain.
Data collected, writing in progress

^ Khan, W.†, Kapadia, M.†, Mancera, E., **Caslin H.L.** Weight gain and loss increase adipose dendritic cell proportions and antigen presentation.
Data collected, writing in progress

^ Lee J.†, **Caslin H.L.**, Park Y. Exercise training mitigates aortic endothelial dysfunction associated with 5-HT1B receptors in mice with Alzheimer's disease.
In preparation for submission

^ Lee J. †, **Caslin H.L.**, Park Y. Voluntary running alleviates endothelial function with increased adiponectin and 5-HT1B receptors in the mesenteric artery in obese mice.
In preparation for submission

Invited Research Presentations

12. University of Houston Tilman J. Fertitta Family College of Medicine Biomedical Sciences (BMS) Networking Event, March 2026
Does your immune system remember obesity? Implications for weight cycling

11. University of Houston Assistant Professor Excellence (APEX) Series, Sept 2025

What all does your immune system remember? Implications for weight loss and cycling

10. University of Texas Health Houston, Institute of Molecular Medicine Seminar Series, May 2025
Immunological memory to weight cycling
9. American Academy of Allergy, Asthma, and Immunology Discovery Conference, Feb 2025
The impact of weight cycling on innate cells in the adipose tissue
8. Yale University Molecular & Systems Metabolism Center, Oct 2024
Immunological memory to weight gain: implications for weight cycling
7. Gulf Coast Consortium Immunology Monthly Seminar Series, June 2024
Immune cell memory and weight cycling. Does the immune system remember weight gain?
6. American Diabetes Association, 84th Scientific Sessions Annual Meeting, June 2024
Immune cell memory and weight cycling
5. University of Houston Drug Discovery Institute, Seminar Series, Nov 2023
Do adipose macrophages remember obesity? Immune cell memory in weight cycling
4. Houston Nutrition Obesity Research Symposium, Annual Symposium, Nov 2023
Do adipose macrophages remember obesity? Immune cell memory in weight cycling
3. University of Kentucky Microbiology and Immunology and Molecular Genetics, January 2023
Do adipose macrophages remember obesity? Immune cell memory in weight cycling
2. University of Virginia Carter Center for Immunology, July 2022
Do adipose macrophages remember obesity? Immune cell memory in weight cycling
1. University of Toronto Adipose Biology Seminar Series, June 2022
Immunological memory to weight cycling

Oral Abstract Presentations-National or International Meetings

*first, last, or corresponding author

^student participation, † direct mentee

*^ 8. Oforika, O.K.^, LaVoy, E.L., **Caslin, H.L.** Exercise during weight loss reduces CD8⁺ T-cell exhaustion, but not glucose intolerance or macrophage inflammation following weight regain
American Physiological Summit “Hot Topics Session” 2026. Minneapolis, MN (2026)

*^ 7. Khan, W. †, Kapadia, M. †, **Caslin, H.L.** Weight gain and loss increase adipose dendritic cell proportions and antigen presentation.
Autumn Immunology Conference. Chicago, IL (Nov 2025)

*^ 6. **Caslin, H.L.**, Bolden III, M.†, Kapadia M.†, Davis, X.D., Sherwood E.R, Bohannon, J.K. Weight loss increases adipose macrophage cytokine and ROS production, which correlates with lower adipose *Staphylococcus aureus* after systemic infection in male mice.
American Physiological Summit. Baltimore, MD (2025)

--Started as Assistant Professor at UH--

*^ 5. **Caslin H.L.**, Cottam M.A., Betjemann A. †, Mashayekhi M., Silver H.J., Hasty A.H. Weight cycling may induce lipid handling in mast cells.

Immunology 2023. Washington, DC (2023)

4. Mashayekhi M., Wanjalla C.N., Olson E., Warren C.M., **Caslin H.L.**, Fuseini H., Bailin S.S., Gabriel C.L., Flynn C.R., Hasty A.H., Brown N.J., Luther J.M., Kalams S.A., Koethe J.R. The effect of SGLT2 inhibition on systemic and adipose tissue inflammation in individuals with obesity and pre-diabetes.
AAP/ASCI/APSA Joint Meeting. Chicago, IL (2023)

* 3. **Caslin H.L.**, Cottam M.A., Winn N.W., Hasty A.H. Do adipose macrophages remember obesity? Innate immune memory in weight cycling.
International Society of Exercise Immunology. Tucson, AZ (2022)
*Honorable mention for oral presentation award

* 2. **Caslin H.L.**, Cottam M.A., Winn N.W., Hasty A.H. Do adipose macrophages remember obesity? Innate immune memory in weight cycling.
Immunology 2022. Portland, OR (2022)

* 1. **Caslin H.L.**, Abebayehu D., Abdul Qayum A., Hoeflerlin L.A., Chalfant C.E., Ryan JJ. Lactic acid suppresses LPS-induced cytokine production in mast cells by limiting glycolysis and ATP availability.
Immunology 2018. Austin, TX (2018)

Poster Abstract Presentations- National/ International Meetings

*first, last, or corresponding author

^student participation, † direct mentee

*^ 31. **Caslin, H.L.**, Oforaka, O.K.^, Kapadia M, Nguyen, E., LaVoy, E.L. Exercise does not prevent innate immune memory following weight cycling.
National American College of Sports Medicine Conference. Salt Lake City (2025)

^ 30. Maddux R., Hodgman C., Crane J., Hanson E.D., Johnston C., Caslin H., LaVoy E. The impact of cardiorespiratory fitness on the function and metabolism of regulatory T cells.
National American College of Sports Medicine Conference. Salt Lake City (2025)

*^ 29. Oforaka, O.K.^, LaVoy, E.L., **Caslin, H.L.** Exercise during weight loss reduces CD8⁺ T-cell exhaustion, but not glucose intolerance or macrophage inflammation following weight regain
American Physiological Summit 2026. Minneapolis, MN (2026)

*^ 28. Khan, W. †, Kapadia, M. †, **Caslin, H.L.** Weight gain and loss increase adipose dendritic cell proportions and antigen presentation.
Autumn Immunology Conference. Chicago, IL (2025)
Immunology 2026. Boston, MA (2026)

*^ 27. Mancera E. †, **Caslin H.** Investigating the effect of metformin and statins on weight cycling and innate immune memory.
Basic Cardiovascular Sciences Scientific Sessions. Baltimore, MD (2025)

*^ 26. **Caslin, H.L.**, Bolden III, M.†, Kapadia M.†, Davis, X.D., Sherwood E.R, Bohannon, J.K. Weight loss increases adipose macrophage cytokine and ROS production, which correlates with lower adipose *Staphylococcus aureus* after systemic infection in male mice.
American Physiological Summit. Baltimore, MD (2025)
Abstract published in *Physiology*. Volume 40, Issue S1.

^ 25. Park Y., Lee, J.†, **Caslin, H.** Serotonin receptor, 5-HT1B, regulates amyloid beta-induced eNOS signaling impairment in human umbilical vein endothelial cells.

American Physiological Summit. Baltimore, MD (2025)
Abstract published in *Physiology*. Volume 40, Issue S1.

--Started as Assistant Professor at UH--

*^ 24. **Caslin H.L.**, Cottam M.A., Betjemann A.[†], Mashayekhi M., Silver H.J., Hasty A.H. Weight cycling may induce lipid handling in mast cells.

Immunology 2023. Washington, DC (2023)
Abstract published in the *Journal of Immunology*. 210 (1_Supplement): 151.06.

* 23. **Caslin H.L.**, Cottam M.A., Winn N.W., Hasty A.H. Do adipose macrophages remember obesity? Innate immune memory in weight cycling.

Immunology 2022. Portland, OR (2022)
Abstract published in the *Journal of Immunology*. 208 (1_Supplement), 164.17-164.17.

* 22. **Caslin H.L.**, Cottam M.A., Winn N.W., Hasty A.H. Weight loss does not reverse the inflammatory phenotype of adipose tissue macrophages following obesity: implications for metabolic memory and impaired glucose tolerance in weight cycling.

Immunology 2020. Honolulu, HI (2020)
**Abstract accepted, Conference cancelled due to COVID-19

* 21. **Caslin H.L.**, Cottam M.A., Hasty A.H. Weight loss restores glucose tolerance but does not reverse macrophage inflammatory potential following obesity.

Tissue Immunity Keystone Meeting. Boulder, CO (2020)

* 20. **Caslin H.L.**, Bolus W.R, Cottam M.A., Hasty A.H. Intraperitoneal bovine serum albumin (BSA) injections suggest a novel link between adipose tissue eosinophils and allergic immunity.

Immunometabolism, Metaflammation and Metabolic Disorders Keystone Meeting.
Vancouver, CA (2019)

* 19. **Caslin H.L.**, Ababayehu D., Abdul Qayum A., Hoeflerlin L.A., Chalfant C.E., Ryan JJ. Lactic acid suppresses LPS-induced cytokine production in mast cells by limiting glycolysis and ATP availability.

Immunology 2018. Austin, TX (2018)
Abstract published in the *Journal of Immunology* 200 (1_Supplement), 49.23-49.23

* 18. **Caslin H.L.**, Ababayehu D., Abdul Qayum A., Hoeflerlin L.A., Chalfant C.E., Ryan JJ. Lactic acid suppresses LPS- induced mast cell activation and septic shock.

National American College of Sports Medicine Conference. Denver, CO (2017)
Abstract published in *Medicine, Exercise, and Sports Science* 49 (5S), 1026-1027.

* 17. **Caslin H.L.**, Ababayehu D., Abdul Qayum A., Hoeflerlin L.A., Chalfant C.E., Ryan JJ. Lactic acid suppresses LPS-induced cytokine production in vitro and in vivo.

Immunology 2017. Washington, DC (2017)
Abstract published in the *Journal of Immunology* 198 (1_Supplement), 222.16-222.16.

16. Morgan J., Franco R.L., Harrison K., Blanks A.M., **Caslin H.L.**, Williams III D.S. The relationship between transverse plane hip rotation and injury in recreational runners training for a half-marathon.

APTA NEXT Conference and Exposition. Nashville, TN (2016)

* 15. **Caslin H.L.**, Ababayehu D., Abdul Qayum A., Spence A.J., Ryan JJ. Lactic acid suppresses cytokine production and expression of miR-155 and 146a following LPS activation in mast cells.

Immunology 2016. Seattle, WA (2016)
Abstract published in the *Journal of Immunology* 196 (1_Supplement), 131.23-131.23.

14. Ababayehu D., Spence A.J., Abdul Qayum A. Taruselli M., McLeod J., **Caslin H.L.**, Kolawole E., Ndaw V., Barnstein B.O., Oskertizian C.A., Ryan J.J. Lactic acid suppresses IL-33-mediated mast cell inflammatory responses via HIF-1 dependent miR-155 suppression.
Immunology 2016. Seattle, WA (2016)
Abstract published in the *Journal of Immunology* 196 (1_Supplement), 202.8-202.8.
13. Abdul Qayum A., Paranjape A., Ababayehu D., Kolawole E.M., Haque T.T., McLeod J.J.A., Spence J.A., **Caslin H.L.**, Baker B., Taruselli M.T., Oskertizian C.A., Ryan J.J. IL-10-induced miR-155 targets SOCS1 to enhance IgE-mediated mast cell function.
Immunology 2016. Seattle, WA (2016)
Abstract published in the *Journal of Immunology* 196 (1_Supplement): 127.3.
12. Blanks A.M., Bowen M.K., **Caslin H.L.**, Schwartz C.S., Acevedo E.O., Franco R.L. Exercise recovery index as an assessment of sympathetic activity in obese and non-obese males.
National American College of Sports Medicine Conference. Boston, MA (2016)
Abstract published in *Medicine, Exercise, and Sports Science* Vol 48(5S), p.1014.
11. Patterson V.T., Slusher A.L., **Caslin H.L.**, Schwartz C.S., Acevedo E.O. High intensity interval ergometry: power output, catecholamines, substance P, and perceived pain.
National American College of Sports Medicine Conference. Boston, MA (2016)
Abstract published in *Medicine, Exercise, and Sports Science* Vol 48(5S), p.115.
10. Morgan J., Franco R.L., Harrison K., Blanks A.M., **Caslin H.L.**, Williams III D.S. Stride frequency and injury rates in recreational runners training for a half-marathon.
National American College of Sports Medicine Conference. Boston, MA (2016)
Abstract published in *Medicine, Exercise, and Sports Science* Vol 48(5S), p.618.
- * 9. **Caslin H.L.**, Ababayehu D., Spence A.J., Abdul Qayum A., Ryan JJ. Lactic acid attenuates LPS-induced cytokine production in mast cells
Immunology 2015, Annual AAI Conference. New Orleans, LA (2015).
Abstract published in the *Journal of Immunology* 194 (1_Supplement), 192.22-192.22.
8. Crabb E.B., **Caslin H.L.**, Bowen M.K, Blanks A.M., Teasley S.G., Acevedo E.O., Franco R.L. Cell adhesion molecules in response to physical and mental stress.
National American College of Sports Medicine Conference. San Diego, CA (2015)
Abstract published in *Medicine, Exercise, and Sports Science* Vol 47(5S), p.873.
7. Verghis R.N., Franco R.L., Browning M.G., **Caslin H.L.**, Crabb E.B., Williams D.S. Oxygen on-kinetics during progressive exercise in men and women: influence of fitness and fatness.
National American College of Sports Medicine Conference. San Diego, CA (2015)
Abstract published in *Medicine, Exercise, and Sports Science* Vol 47(5S), p.365.
- * 6. **Caslin H.L.**, Crabb E.B, Huang C.J., Bowen M.K, Acevedo E.O., Franco R.L. Impact of obesity on norepinephrine and TNF- α following mental stress.
National American College of Sports Medicine Conference. Orlando, FL (2014)
Abstract published in *Medicine, Exercise, and Sports Science* Vol 46(5S), p.914.
5. Crabb E.B., **Caslin H.L.**, Huang C.J., Bowen M.K, Acevedo E.O., Franco R.L. The relationship between BARK-1 and TNF- α in obese males following acute mental stress.
National American College of Sports Medicine Conference. Orlando, FL (2014)
Abstract published in *Medicine, Exercise, and Sports Science* Vol 46(5S), p.914.

* 4. **Caslin H.L.**, Bowen M.L., An K., Acevedo E.O., Franco R.L. Fitness and heart rate reactivity to mental stress: Impact of obesity.

National American College of Sports Medicine Conference. Indianapolis, IN (2013)
Abstract published in *Medicine, Exercise, and Sports Science* Vol. 45 (5), p. 472.

3. Bowen M.K., Franco R.L., Arena R., **Caslin H.L.**, Evans R.K., Wickham E.P. Pulmonary oxygen uptake kinetics and fitness in obese adolescents.

National American College of Sports Medicine Conference. Indianapolis, IN (2013)
Abstract published in *Medicine, Exercise, and Sports Science* Vol. 45 (5), p. 586-7.

2. Gonzalez M., Bowen M.K, **Caslin H.L.**, Acevedo E.O., Franco R.L. Effect of physical fitness on cardiovascular reactivity to acute psychological stress.

Annual Biomedical Research Conference for Minority Students. San Jose, CA (2012)

* 1. **Caslin, H.L.** Psychological therapies for injury rehabilitation: the next step. Advisor: Bonnie Orzolek
National Conference for Undergraduate Research. La Crosse, WI (2009)

Oral Abstract Presentations-Local/Regional Meetings

*first, last, or corresponding author

^student participation, † direct mentee

*^ 2. Oforaka, O.K. †, LaVoy, E.L., **Caslin, H.L.** Exercise training during weight loss attenuates CD8+ memory T-cell exhaustion, but not glucose intolerance, following weight cycling.

Blue Bonnet Physiological Society Conference. Houston, TX (2025)

--Started as Assistant Professor at UH--

* 1. **Caslin, H.L.**, Cottam, M.A., Winn N.C., Hasty A.H. Do adipose macrophages remember obesity? Innate immune memory in weight cycling.

Vanderbilt Vi4 Annual Symposium. Nashville, TN (2023)

Poster Abstract Presentations- Local/Regional Meetings

† direct mentee

*^ 19. Oforaka, O.K. †, LaVoy, E.L., **Caslin, H.L.** Exercise training during weight loss attenuates CD8+ memory T-cell exhaustion, but not glucose intolerance, following weight cycling.

Blue Bonnet Physiological Society Conference. Houston, TX (2025)

Texas American College of Sports Medicine Annual Meeting. Waco, TX (2026)

Abstract published in the *International Journal of Exercise Science: Conference Proceedings*. Vol.2: Issu.18, Article 117.

^ 18. Jose J, Gwa^, E, **Caslin, H**, and Gomez, G. Characterizing the role of miR-155 in mast cell-mediated allergic inflammation

Tilman J. Fertitta Family College of Medicine Student Research Day. Houston, TX (2025)

*^ 17. Bolden III, M.†, Kapadia, M. †, Davis, X.D., Sherwood, E.R., Bohannon, J.K, **Caslin, H.L.** Weight loss increases adipose macrophage cytokine and ROS production, which correlates with lower adipose *Staphylococcus aureus* after systemic infection in male mice. **presenting author*

University of Houston Drug Discovery Institute Symposium. Houston, TX (2025)

Gulf Coast Consortium Future of Immunology Symposium. Houston, TX (2025)

- *^ 16. Nguyen, E. †, **Caslin, H.L.** Investigating the Epigenetic Regulation of Innate Immune Memory. **University of Houston Undergraduate Research Day.** Houston, TX (2025)
Texas American College of Sports Medicine Annual Meeting. Waco, TX (2025)
Abstract published in the *International Journal of Exercise Science: Conference Proceedings*. Vol.2: Issu.17, Article 82.
- *^ 15. Kapadia, M.†, Betjemann, A.M.†, Cottam, M.A., and **Caslin, H.L.** Repeated exposure to adipose tissue-conditioned media induces lipid handling in mast cells similar to weight cycling.
University of Houston Drug Discovery Institute Symposium. Houston, TX (2025)
Gulf Coast Consortium Future of Immunology Symposium. Houston, TX (2025)
Texas American College of Sports Medicine Annual Meeting. Waco, TX (2025)
Abstract published in the *International Journal of Exercise Science: Conference Proceedings* Vol. 2: Iss. 17, Article 75.
Houston-Nutrition and Obesity Research Conference. Houston, TX (2024)
- *^ 14. Bolden III, M. †, Davis, X.D., Sherwood E.R, Bohannon, J.K, **Caslin, H.L.** Weight loss increases adipose macrophage cytokine production and adipose bacterial clearance.
Texas American College of Sports Medicine Annual Meeting. Waco, TX (2025)
Abstract published in the *International Journal of Exercise Science: Conference Proceedings: Vol. 2: Iss. 17, Article 84.*
Houston-Nutrition and Obesity Research Conference. Houston, TX (2024)
- *^ 13. Lee J.†, Kapadia M.†, **Caslin H.L.** Diet-induced weight loss normalizes LPS-induced inflammation but not p-eNOS in the aorta of mice.
Houston-Nutrition and Obesity Research Conference. Houston, TX (2024)
- Started as Assistant Professor at UH--
12. Mashayekhi M., Wanjalla C.N., Olson E., Warren C.M., **Caslin H.L.**, Fuseini H., Bailin S.S., Gabriel C.L., Flynn C.R., Hasty A.H., Brown N.J., Luther J.M., Kalams S.A., Koethe J.R. The effect of SGLT2 inhibition on systemic and adipose tissue inflammation in individuals with obesity and pre-diabetes.
Southeastern Immunology Symposium. Nashville, TN (June 2023)
Vanderbilt Translational Research Forum. Nashville, TN (2022)
- * 11. **Caslin, H.L.**, Cottam, M.A., Winn N.C., Hasty A.H. Do adipose macrophages remember obesity? Innate immune memory in weight cycling.
Vanderbilt VI4 Annual Symposium. Nashville, TN (2023)
Vanderbilt Diabetes Research and Training Center Symposium. Nashville, TN (2023)
Vanderbilt Digestive Disease Research Center. Nashville, TN (2023)
- * 10. **Caslin H.L.**, Cottam M.A., Winn N.W., Hasty A.H. Weight loss does not reverse the inflammatory phenotype of adipose tissue macrophages following obesity: implications for metabolic memory and impaired glucose tolerance in weight cycling.
Diabetes Day, Vanderbilt University. Nashville, TN (2019)
- * 9. **Caslin H.L.**, Bolus W.R, Cottam M.A., Hasty A.H. Intraperitoneal bovine serum albumin (BSA) injections suggest a novel link between adipose tissue eosinophils and allergic immunity.
Vanderbilt VI4 Annual Symposium. Nashville, TN (2018)
8. Blanks A.M., Bowen M.K., **Caslin H.L.**, Schwartz C.S., Acevedo E.O., Franco R.L. Exercise recovery index as an assessment of sympathetic activity in obese and non-obese males.
Southeast Chapter ACSM Conference. Greenville, SC (2016)

* 7. **Caslin H.L.**, Abeyayehu D., Spence A.J., Abdul Qayum A., Ryan JJ. Lactic acid attenuates LPS-induced cytokine production in mast cells

VCU Integrative Life Sciences Student Symposium. Richmond, VA (2015).

VCU Graduate Student Research Symposium. Richmond, VA (2015) *Award Finalist

6. Crabb E.B., **Caslin H.L.**, Bowen M.K, Blanks A.M., Teasley S.G., Acevedo E.O., Franco R.L. Cell adhesion molecules in response to physical and mental stress.

Southeast American College of Sports Medicine Conference. Jacksonville, FL (2015)

5. Verghis R.N., Franco R.L., Browning M.G., **Caslin H.L.**, Crabb E.B., Williams D.S. Oxygen on-kinetics during progressive exercise in men and women: influence of fitness and fatness.

Southeast American College of Sports Medicine Conference. Jacksonville, FL (2015)

*4. **Caslin H.L.**, Crabb E.B, Huang C.J., Bowen M.K, Acevedo E.O., Franco R.L. Impact of obesity on norepinephrine and TNF- α following mental stress.

Southeast American College of Sports Medicine Conference. Greenville, SC (2014)

3. Crabb E.B., **Caslin H.L.**, Huang C.J., Bowen M.K, Acevedo E.O., Franco R.L. The relationship between BARK-1 and TNF- α in obese males following acute mental stress.

Southeast American College of Sports Medicine Conference. Greenville, SC (2014)

* 2. **Caslin H.L.**, Bowen M.L., An K., Acevedo E.O., Franco R.L. Fitness and heart rate reactivity to mental stress: Impact of obesity.

Southeast American College of Sports Medicine Conference. Greenville, SC (2013)

1. Bowen M.K., Franco R.L., Arena R., **Caslin H.L.**, Evans R.K., Wickham E.P. Pulmonary oxygen uptake kinetics and fitness in obese adolescents.

Southeast American College of Sports Medicine Conference. Greenville, SC (2013)

RESEARCH SUPPORT

Research Support- Current

2. Diabetes Action Research and Education Foundation Grant (Jan 1-Dec 31, 2026)

“Inflammatory contribution to weight-cycling accelerated diabetes risk”

PI: Caslin, \$40,000 (including IDC, \$3,636)

1. American Heart Association, Transformational Project Award (July 1, 2025- June 30, 2028)

“Development and metabolic impact of lipid-associated mast cells in weight cycling”

PI: Caslin, Collaborator with effort: Jesse Williams (UMN), \$299,997 (including IDC, \$27,270)

Research Support- Completed

8. American College of Sports Medicine, Early Career Research Grant (July 1, 2024-June 30, 2025)

“Does exercise alleviate weight cycling- accelerated metabolic disease and innate inflammation?”

PI: Caslin, \$10,000

7. Houston Nutrition and Obesity Research Center, Pilot and Feasibility Award (Mar 1, 2024-Feb 28, 2025) “Metabolic mechanisms of adipose macrophage memory”

PI: Caslin, \$50,000 (\$25,000 direct research costs, \$25,000 core facility costs)

6. UH College of Liberal Arts and Sciences, Early Career Research Progress Grant (Jan 1- Dec 31, 2024) “Epigenetic mechanisms of adipose macrophage memory”
PI: Caslin, \$4,000

5. VI4 Mini-Sabbatical Fellowship (2022-2023)
“Does adipose macrophage memory to weight loss affect *S. aureus* infection outcomes?”
PI: Caslin \$4,000

4. Vanderbilt Institute for Clinical and Translational Research (VICTR) Voucher (2021)
“Do human mast cells acquire lipid handling when exposed repeatedly to fatty acids?”
PI: Caslin, \$1,451

3. Vanderbilt Institute for Clinical and Translational Research (VICTR) Voucher (2020)
“Does weight cycling influence adipose tissue mast cells beyond stable obesity?”
PI: Caslin, \$1,973

2. AHA Postdoctoral Fellowship (20POST35120547) (2020-2022)
“The influence of trained innate immunity on macrophages in metabolic disease”
PI: Caslin, \$128,836

1. Multidisciplinary Training In Molecular Endocrinology Training Grant (T32DK007563) (2018-2020)
PI: Richard O’Brien
Postdoctoral Trainee: Caslin

Research Support- In review

Research Support- Declined

1. NIH K99-R00 Award (2023-2028; Received impact score 13 upon resubmission, declined due to change in academic status- accepted faculty position)
“Metabolic Memory in Weight Cycling-Associated Disease”
PI: Caslin, \$927,000

Research Support- Not funded

11. American Heart Association Career Development Award (Submitted 2025)
“Unraveling overlap of innate immune memory in infection and cardiometabolic disease”
PI: Caslin, \$231,000 (including IDC, \$21,000), Discussed, top 30%

10. Australian National Health and Medical Research Council 2025 Ideas Grant
“Innate immune training in post-viral disease” (Submitted 2025)
Chief Investigator: Keng Chew, Co-I: Kirsty Short, “CIB”/ Collaborator: Caslin, No direct funds to UH

9. Mather’s Foundation Letter of Intent (Submitted 2025)
“Identifying the role of innate immune memory in obesity and diabetes”
PI: Caslin, Co-Is: Katherine King (BCM) and Mona Mashayekhi (VUMC), \$700,000 (including IDC %10)
LOI chosen as 1 of 3 UH limited submissions, Did not advance to full proposal

8. Baptist Health Foundation of San Antonio RFP: “Research & Service Pertaining to Mental Health or Obesity & Diabetes” (Submitted 2025)
“Uncovering the role of [innate] immune memory in weight cycling and diabetes”
PI: Caslin, Co-I: Mona Mashayekhi (VUMC), \$750,000 (including IDC, \$63,000)
LOI chosen as 1 of 3 UH limited submissions, Full proposal not funded

7. John S. Dunn Foundation Collaborative Research Award Program (Submitted 2025)

“Metabolic outcomes of microbial- induced innate immune memory”

PI: Caslin, Co-PI: Katherine King (BCM), \$56,500 to UH

LOI chosen as 1 of 3 UH limited submissions, Full proposal not funded

6. The Obesity Society, Early Career Research Grant Letter of Intent (Submitted 2025)

“Manipulating murine microbe exposure to understand the contribution of immune memory to obesity and metabolic disease”

PI: Caslin, \$25,000, Not invited for full proposal

5. American Heart Association, Career Development Award (Submitted 2024)

“Unraveling overlap of innate immune memory in infection and cardiometabolic disease”

PI: Caslin, \$231,000 (including IDC, \$21,000), Not funded

4. NIH, NIAID R21 (Submitted 2024)

“Origins and impact of lipid associated mast cells in weight cycling

PI: Caslin, \$445,648 (including IDC, \$161,796), Not funded

3. American Heart Association, Translational Project Award (Submitted 2024)

“Does exercise protect against the immunometabolic changes with weight cycling”

PI: Caslin, \$299,997 (including IDC, \$27,270), Not funded

2. NIH, NIGMS R35 Maximizing Investigators Research Award (MIRA) for ESI (Submitted 2024)

“Innate Immune Reprogramming in Diet-Induced Weight Cycling”

PI: Caslin, \$1,898,403 (including IDC, \$648,404), Not funded

1. American Heart Association Career Development Award (Submitted 2023)

“Adipose macrophage effector functions in innate immune memory to weight cycling”

PI: Caslin, \$231,000 (including IDC, \$21,000), Not funded

Student Research Support-Funded

1. Texas ACSM Student Research Development Award (SRDA) (Submitted 2025)

“Does weight cycling promotes antigen presentation by adipose tissue dendritic cells in mice?”

PI: Khan, \$1,750 (Faculty Mentor: Caslin)

Student Research Support- Not funded

4. Sigma Xi Grants-In-Aid (Submitted Spring 2026)

“Does CD1d antigen presentation worsen diabetes risk in weight cycling??”

PI: Khan, \$4,995 for (Faculty Mentor: Caslin), Not funded

3. Sigma Xi Grants-In-Aid (Submitted Fall 2025)

“Does CD1d antigen presentation worsen diabetes risk in weight cycling??”

PI: Khan, \$4,837 for (Faculty Mentor: Caslin), *Finalist*

2. Sigma Xi Grants-In-Aid (Submitted Spring 2025)

“Does weight cycling increase antigen presentation and inflammation in dendritic cells?”

PI: Khan, \$4,964 (Faculty Mentor: Caslin), Not funded

1. Texas ACSM Student Research Development Award (SRDA) (Submitted 2025)

“Does exercise attenuate CD8 T cell-associated inflammation in adipose tissues following weight cycling in mice?”

PI: Oforka, \$1653 (Faculty Mentor: Caslin and LaVoy), Not funded

Competitive Travel Awards

6. AAI Early Career Faculty Travel Grant (2026) \$1,250
5. Trainee Abstract Award for travel to AAI Immunology (2023) \$500
4. Vanderbilt Center for Immunobiology (VCI) Travel Award for AAI Immunology (2023) \$500
3. Trainee Abstract Award for travel to AAI Immunology (2021) \$500
2. Vanderbilt Center for Immunobiology (VCI) Travel Award for AAI Immunology (2020) \$500
1. Trainee Abstract Award for travel to AAI Immunology (2018) \$750

TEACHING

University of Houston

- 2025- PEP 7398 **Research Mentor Training (1 cr)**
Co-taught with Emily LaVoy, 2 students
- 2025- KIN 1352 **Foundations of Kinesiology, Health, and Fitness (3 cr)**
S25 (76 students), F25 (211 students), S26 (98 students)
Developed in-person course S25 and recorded/ integrated material into the
online course including lecture videos and skill-based activities for S26
- 2024- PEP 8350 **HHP Candidacy Project Research Supervision (1 cr)**
F24, S25, F25 (1 student each)

Vanderbilt University

- 2023 M&IM 8334 **Immunometabolism (2 classes)**
Interdisciplinary Graduate Program, Lecturer
- 2023 M&IM 8329 **Principles of Immunology and the Immune System in Disease (2 cr)**
Interdisciplinary Graduate Program, Course Associate/ Discussion Facilitator
- 2022 IGP 8001 **Bioregulation Proposal Development Block (3 wk)**
Interdisciplinary Graduate Program, Discussion Facilitator

Virginia Commonwealth University

- 2016-2017 BIOL 476 **Capstone Laboratory (2 cr)**
Department of Biology, Teaching Assistant
- 2015-2016 LFSC 301 **Integrative Life Science Research (3 cr)**
Life Sciences, Teaching Assistant/ Discussion Facilitator
- 2013- 2014 HPEX 441 **Assessment and Exercise Intervention in Health and Disease (3 cr)**
Department of Health and Human Performance, Instructor of Record
- 2013-2014 HPEX 395 **Clinical Experience I (3 cr)**
Department of Health and Human Performance, Instructor of Record
- 2013-2014 HPEX 250 **Medical Terminology (1 cr)**
Department of Health and Human Performance, Instructor of Record
- 2013-2014 HPEX 375L **Exercise Physiology Lab (1 cr)**
Department of Health and Human Performance, Instructor of Record

Guest Lectures

- 2015 HPEX 345 **Sport Nutrition**
Department of Health and Human Performance, Virginia Commonwealth University
1 Lecture

2013 HPEX 375 **Exercise Physiology**
Department of Health and Human Performance, Virginia Commonwealth University
4 Lectures

Teaching Preparation

University of Houston Faculty Engagement and Development

Active Learning: Scaling for Large Classes Panel

The Inclusive Stem Teaching Project (Online MOOC)

CIRTL: An Introduction to Evidence-Based Undergraduate STEM Teaching (Online MOOC)

Vanderbilt Center for Teaching

Certificate in College Teaching Course

VCU Preparing Future Faculty Program

The Academic Profession Course

Teaching and Learning in Higher Ed Course

Teaching, Learning, Technology and the Future of Higher Ed Course

MENTORING

University of Houston- Primary Mentor (As faculty)

Postdoctoral Fellows

Irene Liparulo Postdoctoral Fellow 2025
Research Scientist, MD Anderson Cancer Center

Doctoral Students

Wishal Khan PhD Student 2024-
Program Committee Chair 2024-
Candidacy Paper Chair 2024-
**TACSM Student Research Development Award; Spring 2025*
**Sigma Xi Grants-In-Aid Finalist, Oct 2025 submission*

Kingsley Oforka PhD Student (Co-mentor with Emily LaVoy) 2024-
Program Committee Member 2024-
Candidacy Paper Committee Co-Chair 2024-

Junghoon Lee PhD Student (Co-mentor with Yoonjung Park) 2024-2025
Dissertation Committee Co-Chair 2025
Postdoctoral Fellow with Dr. Amanda Stolarz, UAMS

Undergraduate Students

Eduardo Mancera Undergraduate Research Assistant 2025-2026
**UH Cardiovascular Undergraduate Research Experience (CURE)*

Emily Nguyen Undergraduate Research Assistant 2023-2026
**UH Summer Undergraduate Research Fellowship (SURF)*
**Provost's Undergraduate Research Scholarship (PURS)*
Will begin medical school summer 2026

Research Technicians

McArthur "Mack" Bolden Research Technician/Master's Student 2023-2025
Will begin medical school summer 2026

Munira Kapadia Research Technician 2023-2025
**Top 10 Best Poster Award; HNORC Symposium 2024*

Medical Student, Sam Houston State University 2025

Other

Cassie Leissner Medical Student, UH College of Medicine Summer Research Program
(Co-Mentor with Greg Gomez) 2024

UH Laboratory of Integrative Physiology Research Internship (Co-director)

Co-directed with Emily LaVoy and open to UH undergraduate students for completion certificate

Part 2, Spring 2026 Amy Roman, Hajra Khan, Huy Nguyen, Kashuf Hashmi, Tiffanie
Nguyen, Shahmir Siddiqui, and Youssef Elhefnawi)
Part 1, Spring 2026 20 students (1.5 hr/ week)
Part 1, Fall 2025 25 students (1.5 hr/week)
Part 1, Fall 2024 8 students (1 hr/ week)

University of Houston- Committee Member (As faculty)

Health and Human Performance Department:

Arman Rasti Program and Candidacy Committee Member 2026
Rebekah Hunt Dissertation Committee Member 2024-2025
Justin Crane Dissertation Committee Member 2024-2025
Seth Rinehart Comprehensive Exam Committee Member 2024

Other Departments/ Universities:

Nathan Box Dissertation Committee Member 2025-
(UH, Department of Biology and Biochemistry)
Brooke Franklin Master's Thesis Committee Member 2025-
(UH, Department of Psychology)
Ellesandra Noye PhD Thesis Examiner 2025
(University of Queensland, School of Chemistry and Molecular
Biosciences, PhD Mentor Kirsty Short)

--Started as Assistant Professor at UH--

Vanderbilt University (As postdoctoral fellow)

Azuah Gonzalez VI4 DEI PhD Mentorship Program mentee 2022-2023
Jennifer (Battle) Schuman VI4 DEI PhD Mentorship Program mentee 2021-2023
Consultant Everglade Consulting
Josephine Chu VI4 DEI MS Mentorship Program mentee 2020-2021
Graduated with PhD from Keck Graduate Institute
Jade McDaniel Graduate rotation student (IGP PhD program) 2020
Verda Agan Graduate rotation student (IGP PhD program) 2020
Graduate research assistant 2019
Darian Thomas Graduate rotation student (IGP PhD program) 2019
Arya Nakhe Graduate rotation student (IGP PhD program) 2018
Katie Volk Graduate rotation student (IGP PhD program) 2018
Assistant Professor, Pepperdine University
Jacque Piñon Undergraduate research assistant 2021-2022
MD Program, University of New Mexico
**Co-author on published work*
Alexis Betjemann Undergraduate research assistant 2020-2023
MD Program, Tufts Medical School
**Co-author on paper in submission*
Likem Boney Undergraduate volunteer, Paid research assistant 2018- 2021

MD/ PhD Program, Mayo Clinic

**Co-author on published work*

**Awarded 2020 dkNET Summer of Data Student Internship*

Kylie Fletcher Undergraduate UCRIP summer internship student 2019

Graduated with MD from Vanderbilt University

Sofia Tennent SSMV high school student 2020

**Published in Young Scientist*

Virginia Commonwealth University (As graduate student)

Jordan Rasure Graduate School Mentorship Program mentee 2017-2018

Kayak and Wilderness Medicine Instructor

Melissa Bills HERO-T fellow 2016- 2017

Science/ STEAM Coach, Henrico Co Public Schools

Stephanie Demasi Clinical Internship II intern, Undergraduate student 2014

Graduated with MD from Virginia Commonwealth University

Instructor of Emergency Medicine, Vanderbilt University

Susan Teasley Clinical Internship II intern, Undergraduate student 2013

Training in Mentorship and Leadership

2025 National Research Mentoring Network: Mentoring Undergraduate Students Course

2024 Brown Bag Refresher: Fostering Independence, Gulf Coast Consortia

2024 Understanding Neurodiverse Learning and Motivation Needs, Gulf Coast Consortia

2024 Faculty Mentor Training Workshop Gulf Coast Consortia, based on the Entering Mentoring Curricula

--Started as Assistant Professor at UH--

2022 PRIDE training with the Vanderbilt LBGTLQI Life Office

2020 Speaking Up: Bias Awareness & Intervention In The Remote Workplace, Vanderbilt University via University of New Hampshire PowerPlay & Inclusion Works Inc.

2020 "Leading scientific team and project meetings" and "Difficult conversations and interactions in the research workplace: Fundamentals of negotiation" with Carl M. Cohen, Vanderbilt University

2020 "Strategies for Mentoring Underrepresented Minority Students" via UPenn and Harvard Medical School

2020 Disrupting Everyday Bias, Vanderbilt University

2020 Science communication techniques for advancing justice, equity, diversity, and inclusion (JEDI), RBR 2020 Cohort Sci Comm Workshops

2020 MAPS: Mental Health Awareness and the Prevention of Suicide training

2020 "APS Live: EB Featured Topics: Mentoring Symposium: Imposters, Promoters, Leaders - The Scientific Struggles", American Physiological Society Webinar

2020 "From Bystander to Upstander: take action to combat harassment and aggression", NIH OITE Webinar

2019 "Fair Play" Stereotype and Bias training, Vanderbilt University

2019 Vanderbilt Summer Science Academy Mentorship training, Vanderbilt University

SERVICE

Department or University Committee Service

2025-present Co-Director, Laboratory of Integrative Physiology Ordering and Supplies Manager

2023-present University of Houston, Health and Human Performance GRD Committee Member

GRD Sub-committee LIP Representative (2024- present)

--Started as Assistant Professor at UH--

2021-2023 Vanderbilt Molecular Physiology and Biophysics DEI Committee
2020-2021 Vanderbilt Biomedical Research and Training Career Symposium Planning Committee
2020 Vanderbilt University Women in the Academy Program Planning Committee
2019-2020 Outreach Advisor and Mentorship Chair, Vanderbilt University- Women In Science and Engineering
2018-2020 VU Provost's Women's Advancement & Equity Subcommittee Member for Parental Leave, Childcare, and Family Friendly Policies
2018-2019 Outreach Committee, Vanderbilt University- Women In Science and Engineering
2017-2018 VCU Center for Biological Data Science Director Search Committee Student Member
2017-2018 VCU Graduate School Mentorship Program Mentor
2017-2018 Integrative Life Sciences Student Organization- President
ILS Student Research Symposium Coordinator (2018)
2016-2017 Integrative Life Sciences Student Organization- Board Member at Large
ILS Student Research Symposium Coordinator (2017)

Other University-Related Service

2026 University of Houston Karate Club Advisor
2025 University of Houston, Exercise Science Club Lecture "TACSM, Quiz Bowl, and Undergraduate Research Opportunities"
2024-present Founded and organized UH "Immunology Journal Club" for ~15 students and faculty across HHP, Biology and Biochemistry, Engineering, and the School of Medicine
2024 University of Houston, American Medical Women's Association "Introduction to Research" Panelist
2024 University of Houston, Women in Pre-Med Research Symposium Speaker
2021-2023 Organized VU/VUMC "Innate Immune Memory Interest Group" monthly seminar series

--Started as Assistant Professor at UH--

2018 "My Research Journey" Panelist for Life Sciences Careers course
2018 "Making the Most of Conferences" Panelist for Fisk-Vanderbilt Bridge students
2018 "Time and Task Management in Graduate School" Panelist for incoming Fisk-Vanderbilt Bridge students
2017 "New Graduate Teaching Assistants Welcome" Panelist for incoming VCU GTAs
2016 VCU Honors Summer Undergraduate Research Dinner Panelist
2013 Career Options Panelist for the VCU Exercise Science Club

Grant Review

2026 AHA Innovative Project Award Peer Reviewer: Basic Sciences 1
2024, 2025 AHA Fellowship Award Peer Reviewer: Virology and Diseases
2024, 2025 AHA Transformational Project Award Peer Reviewer: Basic Cell and Molecular Biology

--Started as Assistant Professor at UH--

2021 & 2022 AHA Fellowship Award Peer Reviewer in Training: Immunology Basic Sciences

Conference Service

2026 American Heart Association Scientific Sessions Abstract Reviewer
2026 American Physiology Summit Session Chair for "Endocrinology & Metabolism Section's PhysioHub" and Session Organizer and Moderator for "The cardiometabolic impact of inflammation in weight gain, weight loss, and weight regain"

2025-2026 Texas ACSM Student Bowl Team Sponsor and Referee
2024-2026 Texas ACSM Student Research Development Award Reviewer
2024-2026 Texas ACSM Student Abstract Reviewer and Poster Presentation Judge
2024 Houston Nutrition and Obesity Research Conference Session Chair

Journal Service

2026- Immunity, Inflammation, and Disease (ID3), Editorial Advisory Board
2023- Frontiers in Immunology (Molecular Innate Immunity), Review Editor

Ad hoc Manuscript Reviews

Cell Metabolism (IF: 30.9)
Cell and Molecular Biology Letters (IF: 10.2)
Sports Medicine (IF: 9.4)
Cell Reports (IF: 6.9)
Arteriosclerosis, Thrombosis, and Vascular Biology (IF: 7.4)
Clinical and Translational Medicine (IF: 6.8)
JCI Insight (IF: 6.1)
Frontiers in Immunology (IF: 5.9)
Life Sciences (IF: 5.1)
Frontiers in Nutrition (IF: 5.1)
The Journal of Physiology (IF: 4.4)
Frontiers in Endocrinology (IF: 4.6)
Journal of Inflammation Research (IF: 4.1)
Medicine & Science in Sports & Exercise (IF: 3.9)
International Journal of Obesity (IF: 3.8)
Scientific Reports (IF: 3.9)
Frontiers in Cardiovascular Medicine (IF: 2.9)
Endocrine (IF: 2.9)
Immunity, Inflammation, and Disease (IF: 2.7)

Other Service to the Field

2025-present New PI Slack Board Member
2020-present Black In Immuno Executive Board Member and Secretary (501(c)(3) non-profit status)
2024 Yale Mouse Metabolic Phenotyping Center-Live Vibrant Advisory Committee Member
2021-2022 Intersectional Science Fellows Symposium Selection and Post Symposium Committees
Moderator for Funding Workshop in 2021 Symposium
2020 Organizer for Black in Immuno Week and Public Relations Coordinator

Society Membership

2025-present Member, American Physiological Society (APS)
2023-present Member, Houston- Nutrition and Obesity Research Center (H-NORC)
2023-present Member, Texas American Society of Sport Medicine (TACSM)
2019- present Member, American Heart Association (AHA)
2015- present Member, Sigma Xi (Full Member as of 2026)
2015- present Member, American Association of Immunology (AAI)
2011- present Member, American College of Sports Medicine (ACSM)
2019- 2024 Member, Society for Leukocyte Biology (SLB)
2009- 2018 Member, Phi Kappa Phi Honor Society
2011- 2015 Member, Southeast Chapter of the American Conference of Sports Medicine (SEACSM)

Other Community Related Service

2026 Virginia Commonwealth University, REMS794 Seminar Course lecture "Interviewing for Academic Positions"

2023 University of Houston Clear Lake, HTLH2301 Introduction to Exercise Science lecture
“My Research Career”

Community Outreach

2022 Tallo Ask Me Anything with high school and undergraduate students
2020-2021 Vanderbilt Center for Science Outreach, “Scientist in the Classroom”, 6th grade science at Bellevue Middle School
2019-2020 Vanderbilt Center for Science Outreach, “Scientist in the Classroom”, 8th grade science at McKissak Middle School
2020 MEGAMicrobe Science at Home Videos ([Fireworks and Make it Rain](#)), Vanderbilt Institute for Infection, Immunology and Inflammation
2019 CSO High School Research Symposium Judge (for SSMV and RHSS students)
2019 STEM Goes Red Mentor, Middle Tennessee Event, American Heart Association
2018 Vanderbilt Undergraduate Research Fair Judge
2018 MEGAMicrobe Volunteer, Vanderbilt Institute for Infection, Immunology and Inflammation
2016, 2017 Lab tour/ activity for high school students invited by VCU HERO-T Fellows
2016, 2017 Lab activity with high school students from the Summer Residential Governor’s School Medicine and Health Sciences program
2016 Immunology class/ game with Holman Middle School students
2016 VCU Women in Science Girl Scout Day Guide
2016 Richmond Public Schools STEM Fair Judge
2011- 2013 Cosby High School Tour of the Exercise Physiology Lab

SCIENCE COMMUNICATION

Press + Public Scholarship and Communication

11. VCU alumni feature. <https://khs.vcu.edu/news/newsroom/khs-news/heather-caslin-phd-bs12-ms14-phd18-trains-the-next-generation-of-physiology-students.html>
10. Quoted public media, Stat News article. [How much weight loss is too much? Pharma is pushing the limit with new obesity drugs](#). 2025.
9. Interview, Immune podcast. [Immunology, metabolism, and exercise physiology](#). 2024
8. Research referenced, ADA communications. [Investigator presents detrimental effects of weight cycling](#). 2024
7. Research referenced, ADA communications. [Weight Fluctuation Symposium Session](#). 2024
6. Research referenced, University Press. [Immunological Memory in Weight Cycling](#). 2023
5. Interview, MedicalXpress. [Weight cycling increases diabetes risk](#). 2022
4. Video made in collaboration with Kindea Labs. [Weight gain and loss](#). 2022.
3. Interview, Adriana Norris Youtube channel. [30 Questions with Dr. Heather Caslin | PhD advice, mentorship, science communication + outreach](#). 2021
2. Interview, S*** People Post podcast. [Vaccines and Immunology](#). 2020
1. Interview, The Health Investment podcast. [Are Vaccines Safe? 15+ Nuanced Responses To Common Questions](#). 2020

Article Summaries for University Press

2020 BRET Office Results and Discussion Interview
<https://cdn.vanderbilt.edu/vu-web/medschool-wpcontent/sites/5/2020/06/06115639/Issue-11-2021.pdf>
2020 VU Basic Sciences New Discoveries:
[Late-night meals may reduce how much fat your body burns at night](#)
[Cellular stress regulates \$\beta\$ -cell dysfunction in type 2 diabetes](#)
2020 VUMC Reporter: [Race, Hormones, and Diabetes Risk](#)

Science Communication Courses

- 2021 Vanderbilt University BRET Office ASPIRE module, [Sci Comm for All](#)
2020 Northwestern, SCOPE ([Science Communication Online Programme](#))
2020 Pilot tested the American Heart Association module, [The Heart of Communicating Science](#)

OTHER WORK EXPERIENCE

Related Volunteer Work

- 2010-present Blood donor
2025 Running Coach, Girls on the Run Greater Houston
2018-2019 Running Coach, Girls on the Run Middle Tennessee
2018 Hands on Nashville Volunteer Day: Serve in Schools
2018 Lab Volunteer Project with Grow Production Gardens and The Nashville Food Project
2017 Girls on the Run 5k Committee and Race Day Volunteer (Richmond)
2016 Ragnar Relays Richmond Volunteer
2014, 2015 Richmond Road Runners Volunteer

Clinical Experience

- 2012-2013 Rehabilitation Technician, Bon Secours Physical Therapy, Richmond, VA
2011-2013 Rehabilitation Technician, Physiotherapy Associates, Richmond, VA
2010 Intern, Olympic Training Center Sports Medicine Clinic, Colorado Springs, CO
2010 Intern, TEENS program, VCU Health and Human Performance Lab, Richmond, VA
2009 PT Aide & Office Assistant, Berryville Physical Therapy and Wellness, Berryville, VA
2008 PT Aide & Office Assistant, Purcellville Orthopedic PT, Purcellville, VA