

**CURRICULUM VITAE**  
**EMILY C. LAVOY, Ph.D.**

Associate Professor  
Department of Health and Human Performance  
University of Houston  
[eclavoy@uh.edu](mailto:eclavoy@uh.edu)

**EDUCATION**

- PhD **University of Houston**, Kinesiology 2009-2014  
Dissertation: Acute exercise to improve adoptive transfer immunotherapy  
Supervisor: Richard J Simpson, Ph.D.
- MS **Northern Michigan University**, Biology 2005-2008  
Thesis: T cell-independent antibody response during viral infection  
Supervisor: Osvaldo Lopez, Ph.D.
- BS **Northern Michigan University**, Biology 2001- 2005  
*Summa cum Laude*

**ACADEMIC APPOINTMENTS**

- 2022-present Associate Professor, with tenure Health and Human Performance, University of Houston
- 2015-2022 Assistant Professor, Health and Human Performance, University of Houston
- 2014-2015 Post-doctoral Research Fellow, Health and Human Performance, University of Houston

**OTHER PROFESSIONAL EXPERIENCE**

- 2011-2014 Graduate Research Assistant, University of Houston
- 2009-2011 Graduate Teaching Fellow, University of Houston
- 2008- 2009 Laboratory Manager/Research Assistant, Louisiana State University Health Sciences Center
- 2005- 2008 Graduate Teaching Fellow, Northern Michigan University

**PUBLICATIONS**

Peer-Reviewed Journal Articles

\* denotes E.C. LaVoy as lead/corresponding author; # denotes student as lead author

48. \*Kang, D.; Courneya, K.S.; Swartz, M.C.; Vareki, S.M.; Gordon, N.B.; Rosa Neto, J.C.; Schadler, K.L.; Simpson, R.J.; Baker, K.S.; **LaVoy, E.C.** (2026) Chronic exercise training intensity, immune cells, and cancer outcomes: A scoping review. *JNCI Cancer Spectrum*  
DOI: 10.1093/jncics/pkag021

47. #Yazdekhosti, S., **LaVoy, E.C.**, Gorniak, S.L. (2025). Assessing Breast Acceleration While Using Sports Bras and Conventional Bras: A Comparative Analysis of Measurement Techniques. *Journal of Biomechanics*. doi: 10.1016/j.jbiomech.2025.112640 PMID: 40132245
46. Clement, A., Yazdekhosti, S., **LaVoy, E.P.**, Gorniak, S.L. (2025). Evaluating the effects of sports bra design, body composition, metabolic markers, and sex-hormones on kinetic measures of postural control in full-busted women during physical activity. *Journal of Applied Biomechanics* doi: 10.1123/jab.2024-0063 PMID: 40101740
45. Lacourt, T.E., Tripathy, D., Swartz, M.C., **LaVoy, E.C.**, Heijnen, C.J. (2024) Distress and inflammation are independently associated with cancer-related symptom severity. *Comprehensive Psychoneuroendocrinology* doi.org/10.1016/j.cpniec.2024.100269 PMID: 39469338
44. \***LaVoy, E.C.** (2024) Can exercise improve treatment for chronic lymphocytic leukemia? *Brain Behavior and Immunity* 120 (2024) 119-120 doi.org/10.1016/j.bbi.2024.05.036 PMID: 38815660
43. Che Young Lee, Gordon MJ, Markofski, M.M., **LaVoy, E.C.**, Peterson, SK, Li, L., Fares, S., Baum, M., Pace, M., Walsh, D., Ferrajoli, A., Basen-Engquist, K. (2024) Optimization of mHealth behavioral interventions for patients with chronic lymphocytic leukemia: the HEALTH4CLL study. *Journal of Cancer Survivorship* doi:10.1007/s11764-024-01555-w PMID: 38472612
42. #Lee, J., Zarezadehmehrizi, A., **LaVoy, E.C.**, Markofski, M.M., Park, Y. (2024) Exercise Training Improves Brachial Artery Endothelial Function, but Does Not Alter Inflammatory Biomarkers in Patients with Peripheral Artery Disease: a Systematic Review and Meta-analysis. *J Cardiovasc Transl Res* doi: 10.1007/s12265-023-10451-0 PMID: 37870688
41. #So, C.J, **LaVoy, E.**, Harmouch, S, Alfano, C.A. (2024) Objective and subjective sleep patterns and biomarkers of stress among women with a history of sexual abuse in childhood. *Psychological Trauma: Theory, Research, Practice, and Policy*. doi: 10.1037/tra0001600 PMID: 37870777
40. #\*Hodgman, C.F. Hunt, R.M., Crane, J.C. Elzayat, M.T., **LaVoy, E.C.** (2023) A Scoping Review on the Effects of Physical Exercise and Fitness on Peripheral Leukocyte Energy Metabolism. *Exerc Immunol Rev.* 29:54-87 PMID: 37358364
39. #\*Hunt, R., Elzayat, M., Laughlin, M., Markofski, M.M., **LaVoy, EC.** (2023) Characterization of Transitional Memory CD4+ and CD8+ T-cell Mobilization During and After an Acute Bout of Exercise. *Frontiers in Sports and Active Living*, 5:1120454 doi: 10.3389/fspor.2023.1120454 PMID: 37139298
38. #\*Crane, J., Gordon, M., Basen-Engquist, K., Ferrajoli, A., Markofski, M.M., Young, C., Fares, S., Simpson, R., **LaVoy, E.C.** (2023) Relationships between T-lymphocytes and physical function in adults with chronic lymphocytic leukemia: results from the HEALTH4CLL pilot

study. *European Journal of Haematology* 110(6):732-742. doi: 10.1111/ejh.13958 PMID: 36946440

37. Savage, H., Pareek, S., Lee, J., Ballaro, R., Minussi, D.C., Hayek, K., Sadullozoda, M., Lochmann, B., McQuade, J., **LaVoy, E.**, Marmonti, E., Patel, H., Wang, G., Imanishi, M., Kotla, S., Abe, J., Schadler, K. (2023) Aerobic exercise alters the melanoma microenvironment and modulates ERK5 S496 phosphorylation. *Cancer Immunology Research* 11(9):1168-1183. doi: 10.1158/2326-6066.CIR-22-0465 PMID: 37307577

36. Batatinha, H., Diak, D., Niemi, G., Baker, F., Smith, K., Zúñiga, T., Mylabathula, P., Seckler, M., Lau, B., **LaVoy, E.C.**, Gustafson, M., Katsanis, E., Simpson, R.J. (2023) Human lymphocytes mobilized with exercise have an anti-tumor transcriptomic profile and exert enhanced graft-versus-leukemia effects in xenogeneic mice. *Front Immunol* Apr 3:14:1067369. doi: 10.3389/fimmu.2023.1067369 PMID: 37077913

35. #\*Gupta P, Hodgman CF, Alvarez-Florez C, Schadler KL, Markofski MM, O'Connor D.P., **LaVoy, E.C.** (2022) Comparison of three exercise interventions with and without gemcitabine treatment on pancreatic tumor growth in mice: No impact on tumor infiltrating lymphocytes. *Front Physiol.* Nov 21:13:1039988. doi: 10.3389/fphys.2022.1039988 PMID: 36479351

34. #Hodgman, C.F., **LaVoy, E.C.**, Johnston, C.A., Obasi, E., Murillo R., Yan S., O'Connor D.P., McNeill, L. Reitzel, L.R., Hernandez, D.C. (2022) Measuring pro- and anti-inflammatory biomarkers among low-income Hispanic adults: a feasibility and pilot assessment. *Health Behavior Research* Vol. 5: No. 3. doi: 10.4148/2572-1836.1143

33. Graff, R.M., Jennings, K., **LaVoy, E.C.**, Warren, V., Macdonald, B., Park, Y., Markofski, M. (2022) T-cell counts in response to acute cardiorespiratory or resistance exercise in physically active or physically inactive older adults: A randomized crossover study. *Journal of Applied Physiology* doi:10.1152/jappphysiol.00301.2021

32. #\*Gupta, P., Hodgman, C.F., Schadler, K.L., **LaVoy, E.C.** (2022) Effect of exercise on pancreatic cancer patients during treatment: A scoping review of the literature. *Supportive Care in Cancer* doi:10.1007/s00520-022-06925-7 PMID:35190894

31. \*Markofski, M.M., Jennings, K., Hodgman, C.F., Warren, V.E., **LaVoy, E.C.** (2021) Physical activity during the SARS-CoV-2 pandemic is linked to better mood and emotion. *Stress & Health* doi:10.1002/smi.3111 PMID: 34775682

30. #\*Elzayat, M.T., Markofski, M.M., Simpson, R.J., Laughlin, M., **LaVoy, E.C.** (2021) No effect of acute eccentric resistance exercise on immune responses to Influenza vaccination in older adults: a randomized control trial. *Frontiers in Physiology* Aug12:12:713183 doi:10.3389/fphys.2021.713183 PMID: 34456752

29. # Reesor-Oyer, L., Murillo, R., **LaVoy, E.C.**, O'Connor, D.P., Liu, Y., Hernandez, D.C. (2021) The role of leisure time physical activity and sedentary behavior in the income-overweight/obesity relationship. *International Journal of Environmental Research and Public Health* doi:10.3390/ijerph18063127
28. # Graff, R., Jennings, K., Davies, N., Carrillo, A., **LaVoy, E.C.**, Ryan, E.J., Markofski, M. (2021) A short-term paleolithic dietary intervention does not alter adipokines linked to adiposity. *International Journal of Exercise Science* doi:10.70252/AESM3821 PMID: 34055149
27. \* **LaVoy, E.C.**, Palmer, C.A., So, C., Alfano, C.A. (2020) Bidirectional relationships between sleep and biomarkers of stress and immunity in youth. *International Journal of Psychophysiology* doi:10.1016/j.ijpsycho.2020.10.010
26. #Kunz, H.E., Agha, N.H., **LaVoy, E.C.**, Hussain, M., Smith, K.A., Mylabathula, P., Diak, D., Baker, F.L., O'Connor, D. P., Bond, R.A., Katsanis, E., Bollard, C.M. Simpson, R.J. (2020) The effects of  $\beta 1$  and  $\beta 1+2$  adrenergic receptor blockade on the exercise-induced mobilization and ex vivo expansion of virus-specific T-cells: implications for cellular therapy and the anti-viral immune effects of exercise. *Cell Stress and Chaperones* doi:10.1007/s12192-020-01136-7
25. # Lee, J., Hong, J. Umetani, M., **LaVoy, E.C.**, Kim, J., Park, Y. (2020) Vascular protection by exercise in obesity: inflammasome-associated mechanisms. *Medicine & Science in Sports & Exercise* doi:10.1249/MSS.0000000000002419
24. #Serajian, A., Nourshahi, M., **LaVoy, E.C.**, Eliaspour, D., Rajabi, H., and Zekri Kondalaji, R. (2020) Effect of a 4-week fish oil supplementation on neuromuscular performance after exhaustive exercise in young healthy men. *Comparative Exercise Physiology* 17(1):43-53 doi.org/10.3920/CEP200011
23. Markofski, M., Jennings, K., Dolan, C.T., Davies, N., **LaVoy, E.C.**, Ryan, E., Carrillo, A. (2019) Single-arm eight-week ad libitum self-prepared Paleo diet reduces cardiometabolic disease risk factors in overweight adults. *American Journal of Lifestyle Medicine* doi.org/10.1177/1559827619866157
22. \* **LaVoy, E.C.**, Arlinghaus, K., Rooney, B., Gupta, P., Atkinson, R., and C. Johnston. (2018) High Adenovirus 36 seroprevalence among a population of Hispanic American youth. *International Adolescent Medicine and Health*. doi.org/10.1515/ijamh-2018-0110
21. # Graff, R.M., Kunz, H.E., Agha, N.H., Baker, F.L., Laughlin, M. Bigley, A.B., Markofski, M.M., **LaVoy, E.C.**, Katsanis, E., Bond, R.A., Bollard, C.M., and R.J. Simpson. (2018) Beta2-adrenergic receptor signaling mediates the preferential mobilization of differentiated subsets of CD8+ T-cells, NK-cells, and non-classical monocytes in response to acute exercise in humans. *Brain Behavior and Immunity* (18)30525-7 doi:10.1016/j.bbi.2018.08.017 PMID: 30172948

20. \* Wardle, M.C., Lopez-Gamundi, P., and E.C. **LaVoy**. (2018) Effects of an acute bout of physical exercise on reward functioning in healthy adults. *Physiology and Behavior* 194:552-559. doi.org/10.1016/j.physbeh.2018.07.010
19. #Rooney, B.V., Bigley, A., **LaVoy, E.**, Laughlin, M., Pedlar, C., and R. J. Simpson. (2018) Lymphocytes and monocytes egress peripheral blood within minutes after cessation of steady state exercise: A detailed temporal analysis of leukocyte extravasation. *Physiology and Behavior* 194:260-267 PMID: 29885920 doi.org/10.1016/j.physbeh.2018.06.008
18. #Lee, J., Lee, Y., **LaVoy, E.C.**, Umetani, M., Hong, J. and Y. Park. (2018) Physical activity protects NLRP3 inflammasome-associated coronary vascular dysfunction in obese mice. *Physiological Reports* 6(12):e13738. PMID: 29932503 doi.org/10.14814/phy2.13738
17. #\*Gupta, P., Bigley, A., Markofski, M., Laughlin, M., and E.C. **LaVoy**. (2018) Autologous serum collected 1h post-exercise enhances natural killer cell cytotoxicity. *Brain Behavior and Immunity* 71:81-92 doi:10.1016/j.bbi.2018.04.007 PMID: 29656052
16. #Serajian, A., Nourshahi, M., **LaVoy, E.**, and D. Eliaspour. (2017) Decrease in baseline values of inflammatory mediators and improvement in muscular performance after 4-weeks fish oil supplementation. *Razi Journal of Medical Sciences*, **24** (160) <http://rjms.iums.ac.ir/article-1-4884-en.html>
15. \***LaVoy, E.C.**, Hussain, M., Reed, J. Kunz, H., Pistillo, M., Bigley, A. and R. J. Simpson. (2017) T-cell redeployment and intracellular cytokine expression following exercise: effects of exercise intensity and cytomegalovirus infection. *Physiological Reports*, **5** (1) PMID: 28087817 doi.org/10.14814/phy2.13070
14. \***LaVoy E.C.**, Fagundes C.P., and R. Dantzer. (2016) Exercise, inflammation, and fatigue in cancer survivors. *Exercise Immunology Review*, **22** 82-93 PMID:26853557
13. Simpson, R.J., Bigley, A.B., Spielmann, G., E.C. **LaVoy**, Kunz, H., and C.M. Bollard. (2016) Human cytomegalovirus infection and the immune response to exercise. *Exercise Immunology Review*, **22** 8-27. PMID: 26853134
12. #Silveira, S.L., **LaVoy, E.C.**, and C.A. Johnston. (2016) Assisting the novice in lifestyle change. *American Journal of Lifestyle Medicine*, **10** (3) PMID: 30202271 doi.org/10.1177/1559827616629913
11. \***LaVoy E.C.**, Bollard C.M., Hanley P.J., Blaney J.W., O'Connor D.P., Bosch J.A., and R.J. Simpson. (2015) A single bout of dynamic exercise enhances the expansion of MAGE-A4 and PRAME-specific cytotoxic T-cells from healthy adults. *Exercise Immunology Review*, **21**,144-53. PMID: 25826370

10. \***LaVoy E.C.**, Bollard C.M., Hanley P.J., O'Connor D.P., Lowder T.W., Bosch J.A., and R.J. Simpson. (2015) A Single Bout of Dynamic Exercise by Healthy Adults Enhances the Generation of Monocyte-Derived-Dendritic Cells. *Cellular Immunology* **295**, 52-59. PMID: 25749006 doi.org/10.1016/j.cellimm.2015.02.007
9. Brown, F.F., Bigley, A.B., Ross, J.S., **LaVoy, E.C.**, Simpson, R.J., and S.D.R. Galloway. (2015) T-lymphocyte populations following a period of high volume training in female soccer players. *Physiol. and Behavior* PMID: 26432452 doi.org/10.1016/j.physbeh.2015.09.027
8. \***LaVoy, E.C.**, Bigley, A.B., Spielmann, G., Rector, J.L., Morrison, M.R., O'Connor, D.P. and R.J. Simpson. (2014) CMV amplifies T-cell redeployment to acute exercise independently of HSV-1 serostatus. *Medicine and Science in Sports and Exercise*, 46, 257-267. doi.org/10.1249/MSS.0b013e3182a5a0fb
7. Spielmann, G. Bollard, C.M., Bigley, A.B., Hanley, P.J., Blaney, J.W., **LaVoy, E.C.**, Pircher, H. and R.J. Simpson. (2014) The effects of age and latent cytomegalovirus infection on the redeployment of CD8+ T cell subsets in response to acute exercise in humans. *Brain Behavior and Immunity*, 39, 142-151. PMID: 23684819 doi.org/10.1016/j.bbi.2013.05.003
6. \***LaVoy, E.C.**, Nieman, D.C., Henson, D.A., Shanely, R.A., Knab, A.M., Cialdella-Kam, L., and R.J. Simpson. (2013) Latent cytomegalovirus infection does not alter innate immune function in response to a 75-km cycling time trial. *European Journal Applied Physiology*, 113, 2629-2635. PMID: 23929537 doi.org/10.1007/s00421-013-2706-8
5. \***LaVoy, E.C.**, Bosch, J.A., Lowder, T.W. and R.J. Simpson. (2013) Acute aerobic exercise in humans increases cytokine expression in CD27- but not CD27+ CD8+ T-cells. *Brain Behavior and Immunity*, 27, 54-62. doi.org/10.1016/j.bbi.2012.09.006
4. Bigley, A.B., Spielmann, G., **LaVoy, E.C.** and R.J. Simpson. (2013) Can exercise-related improvements in immunity influence cancer incidence and prognosis in the elderly? *Maturitas*, 76, 51-56. PMID: 23870832 doi.org/10.1016/j.maturitas.2013.06.010
3. Pistillo, M., Bigley, A.B., Spielmann, G., **LaVoy, E.C.**, Morrison, M.R., Rahman, M. and R.J. Simpson. (2013) The effects of age and viral serology on  $\gamma\delta$  T-cell numbers and exercise responsiveness in humans. *Cellular Immunology*, 284, 91-97. PMID: 23954795 doi.org/10.1016/j.cellimm.2013.07.009
2. Simpson, R.J., Lowder, T.W., Spielmann, G., Bigley, A.B., **LaVoy, E.C.** and H. Kunz. (2012) Exercise and the aging immune system. *Ageing Research Reviews*, 11, 404-420. PMID: 22465452 doi.org/10.1016/j.arr.2012.03.003

1. \***LaVoy, E.C.**, McFarlin, B.K. and R.J. Simpson. (2011) Immune responses to exercising in a cold environment. *Wilderness and Environmental Medicine* 22, 343-351 PMID: 21982757 doi.org/10.1016/j.wem.2011.08.005

#### Textbook Contributions

1. \***LaVoy, E.C.** and Nieman, D. ‘Exercise and communicable disease: General population and athletes’ Chapter in *Exercise Immunology 2<sup>nd</sup> edition* Ed. Spielmann, G., Turner, J., Campbell, J. Routledge Publishing, 2024. ISBN: 9781032189161
2. \***LaVoy, E.C.** and Hodgman, C.F. ‘Exercise for mental health: biopsychosocial and contextual implications’ Chapter in *Lifestyle Psychiatry: Through the Lens of Behavioral Medicine* Ed. Merlo, G., Fagundes, C.P. CRC Press/Taylor & Francis, 2023. ISBN: 9781032230993.
3. Spielmann G, Bigley AB, **LaVoy EC**, Simpson RJ. “Aging Immunity and the Impact of Physical Exercise”. Chapter in *Immunology of Aging*, pg 369-397. Ed. Massoud A, Rezaei N. Berlin Heidelberg: Springer-Verlag, 2014. ISBN: 978-3-642-39494-2

#### **MASS MEDIA CONTRIBUTIONS AND MENTIONS**

1. LaVoy E.C. “Athletic answers: Expert insights” in ‘2022’s Best Cities for Runners by Sav Maive. Interviewed June 14 2022  
<https://lawnlove.com/blog/best-cities-for-runners/>
2. LaVoy, E.C. “Physical Activity during the COVID-19 Pandemic” Medicine in Motion Podcast. Interviewed April 2021  
<https://open.spotify.com/episode/1c5rFDiP2X4CYPCjC4qjvw?si=9f8e4abb79ae47b5>
3. Mentioned in ‘Exercise and Cancer: From Prevention to Treatment’ press release from American Physiological Society November 9 2020  
<https://www.physiology.org/detail/news/2020/11/09/exercise-and-cancer-from-prevention-to-treatment?SSO=Y>
4. Mooney Smith, T. “UH CLASS Professors Shed Light on Physical, Mental Trauma of Thai Soccer Team” UH News and Events July 12 2018  
<https://www.uh.edu/class/news/archive/2018/summer/thai-soccer-team-rescue/>

#### **PRESENTATIONS**

Invited Talks and Oral Presentations at Scientific Meetings:

1. **LaVoy, E.C.,** Hodgman, C.F. Leukocyte Energy Metabolism and Exercise. 4th International Symposium on Immunometabolism and Exercise. São Paulo, Brazil and virtual, March 22, 2025
2. **LaVoy, E.C.,** Crane, J. Can the immunometabolic effects of exercise mitigate fatigue? *Air Force Research Lab Human Performance Lunch and Learn, February 2025*
3. **LaVoy, E.,** Tripathy, D., Swartz, M.C., Heijnen, C., Whisenant, M., Lacourt, T. Longitudinal Relationships Between Inflammation and Somatic Symptoms and Depression in Breast Cancer Patients During and After Chemotherapy. *16<sup>th</sup> Symposium of the International Society of Exercise and Immunology, 2024*
4. **LaVoy, E.C.** Exercise as an intervention to improve immunity. *Empowering Brilliance: Celebrating Women in Research.* University of Houston, February 24, 2024
5. **LaVoy, E.C.** Lecture: “Exercise and the immune system: considerations for cancer patients”. Symposium: *Special Topics in Breast Cancer Rehabilitation: From Cell to Survivorship* TurningPoint Breast Cancer Rehabilitation, Online, November 6, 2021
6. **LaVoy, E.C.** Lecture: “Lymphocyte responses to acute and chronic exercise”. Symposium: Exercise and the Immune System, Mid-Atlantic meeting of the American College of Sports Medicine, Harrisburg PA, November 5, 2021
7. **LaVoy, E.C.** ‘Exercise and the immune system: considerations for cancer patients. Energy Balance Research Seminar at MD Anderson Cancer Center. Online, October 21 2021
8. **LaVoy, E.C.** and Nieman, D. “Debate: Vigorous exercise suppresses immune functioning”. Hilliard Discussion, Texas A&M’s Huffines Institute for Sports Medicine and Human Performance. Online, September 29, 2021 Available online at: <https://www.youtube.com/watch?v=2-21MRkmWpw>
9. **LaVoy, E.C.** “Hot Topics: Immune Responses to Exercise”. *Translating Energy Balance from Bench to Communities: Application of Parallel Animal-Human Studies in Cancer Conference,* Online, July 8-10 2021
10. **LaVoy, E.C.** “Exercise and the Immune System: implications for health and disease”. *Continuing Education for Clinical Exercise Physiology Association,* Webinar, April 14, 2021 [https://acsm-cepa.org/content.aspx?page\\_id=4002&club\\_id=324409&item\\_id=1383486](https://acsm-cepa.org/content.aspx?page_id=4002&club_id=324409&item_id=1383486)
11. **LaVoy, E.C.** “Exercise and the immune system: implications for health”. *Health Tea Psychology/Affective Neuroscience Brown Bag,* Rice University Bioscience Research Collaborative, Houston TX, December 4, 2019
12. **LaVoy, E.C.** “Exercise immunology” *MECH Brown bag,* University of Houston/MD Anderson, Houston TX, November 21, 2019
13. **LaVoy, E.C.** “Immunology of exercise: using physical activity as a means of modulating our immune systems”. *Health Tea Psychology/Affective Neuroscience Brown Bag,* Rice University Bioscience Research Collaborative, Houston TX, September 19, 2018
14. **LaVoy, E.C.,** P. Gupta, A. Bigley. Increase in Natural Killer cells with an activated phenotype during recovery from acute dynamic exercise. *Annual Meeting of American College of Sports Medicine* Denver, CO. June 2017

15. **LaVoy, E.C.** “Exercise and the immune system: implications for health and disease”. *Research meeting, Center for Neurobehavioral Research on Addiction, University of Texas Health Science Center, Houston TX, November 14, 2016*
16. **LaVoy, E.C., Hussain, M., Reed, J., Kunz, H., Pistillo, M., and R.J. Simpson.** Redeployment of immune cell subsets across multiple exercise intensities in the context of cytomegalovirus infection. *Annual Meeting of American College of Sports Medicine Boston, MA. June 2016*
17. **LaVoy, E.C., Blaney, J.W., Hanley, P.J., Bollard, C.M. and R.J. Simpson.** A single bout of exercise improves the expansion of cytotoxic T-cells specific to melanoma antigens in healthy humans: Implications for adoptive transfer immunotherapy. *Psychoneuroimmunology Research Society Annual Scientific Meeting Philadelphia, PA, May 2014.*
18. **LaVoy, E.C., Blaney, J.W., Hanley, P.J., Bollard, C.M. and R.J. Simpson.** Exercise can enhance the expansion of cytotoxic T-cells specific to melanoma antigens: implications for adoptive transfer immunotherapy? *MD Anderson Cancer Center Energy Balance and Cancer Retreat, Houston, TX, February 2014.*
19. **LaVoy, E.C. and R.J. Simpson.** Acute exercise increases cytokine expression in late but not early differentiated CD8+ T-cells. *American College of Sports Medicine Annual Meeting, San Francisco, CA, June 2012.*

Professional Conferences/Peer Reviewed Abstracts (accepted and/or delivered)

1. **LaVoy, E.C., Roth, M.E., Weather, S., Wang, J., Andersen, C., Amsbaugh, M., Kasembeli, M.M., Whisenant, M., Kelly, D, Escalante, C., Pan, E., Parker, N.H., Vargo, A., Blevins, J.E., Damron, E., Gibson, J., LaCourt, T., Swartz, M.C.** RISE-YA: a novel intervention for young adult brain tumor survivors with cancer-related fatigue – study protocol for a randomized controlled trial. *International Society of Exercise Oncology meeting, July 22-23 2026, Heidelberg, Germany*
2. **LaVoy E.C., Anjier A.R., Schadler, K.L., Gordon, N.B.** Exercise to Enhance NK Cell Therapy for Osteosarcoma: Results from a Pilot Study *American College of Sports Medicine Annual Meeting, May 26-29 2026 Salt Lake City, UT*
3. **Schadler, K., Swartz, M.C., King, T., Griffen, A., Rajan, A., Webster, C., Honey, T., Vargo, A., Blevins, J., Chow, E., LaVoy, E., Parker, N., Weathers, S., Smegal, L., MacDonald, T. Bai, J.** Interim report of the RISE trial: Virtually Delivered Home-based Exercise Intervention on Cognitive Impairment and Gut Microbiome in Adolescent and Young Adult (AYA) Brain Tumor Survivors. *3<sup>rd</sup> Pediatric Exercise Oncology Congress, April 16-17 2026 Mainz, Germany*
4. **Yazdekhosti, S., LaVoy, E.C., Gorniak, S.L.** Neuromuscular Activation During Gait in Women With Large Breasts: Role of Garment Support and Biological Factors. *Society for Neuroscience Annual Meeting, San Diego, CA November 2025*
5. **Oforika, K.O., LaVoy, E.C., Caslin, H.L.** Exercise training during weight loss attenuates CD8+ memory T-cell exhaustion, but not glucose intolerance, following weight cycling. *American Physiology Society Blue Bonnet Chapter 2025 meeting, September 2025*

**Selected for Data Blitz talk**

6. Hodgman, C.F., Maddux, R.M., Crane, J. **LaVoy, E.C.** Acute Aerobic Exercise Alters CD8+ T Cell Metabolism Independent of Exercise Intensity *GCC Future of Immunology Symposium*, March 2025, Houston TX
7. Gorniak, S.L., Clement, A., Yazdekhesti, S., **LaVoy, E.C.** Influence of Body Composition and Sex Hormone Levels on Center Of Pressure Measures During Gait in Full-Busted Women. American Society for Biomechanics (ASB) Meeting, University of Pittsburgh, Pittsburgh, PA August 2025
8. **LaVoy, E.C.**, Crane, J., Hodgman, C.F., Maddux, R. Cardiorespiratory Fitness Predicts Aspects Of CD8 T Cell Function And Metabolism. *American College of Sports Medicine Annual Meeting 2025*, Atlanta, GA May 27-30 2025
9. Chibani, N. Swartz, M.C., **LaVoy, E.C.** The Impact of Physical Exercise on Cancer-Related Fatigue among Adolescents and Young Adults with Brain Tumors: A Systematic Review. *Cancer Survivorship Research Retreat*, Houston TX, February 27, 2025.

**Undergraduate student lead author**

10. Fuentes, N., **LaVoy, E.C.**, Hodgman, C.F., Maddux, R., Crane, J., Herskowitz, M. Mitochondrial Function in T-cells: The impact of Cardiorespiratory Fitness and Body Fat in Men and Women. *Texas Chapter of the American College of Sports Medicine Annual Meeting 2025* Waco, TX, February 2025.

**Undergraduate student lead author**

11. Hodgman, C.F., Gordon, M.J., Basen-Enquist, K.M., Ferrajoli, A., Markofski, M., Lee, C.Y., Simpson, R.J., **LaVoy, E.C.** Impact of a 16-Week Exercise and Lifestyle Intervention on Inflammation, Fatigue, and Physical Function Among Adults with CLL. *16<sup>th</sup> Symposium of the International Society of Exercise and Immunology*, 2024
12. Hunt, R., Hodgman, C.F., Crane, J., **LaVoy, E.** The Impacts of Body Composition on the Metabolic Activity of Regulatory T Cells. *16<sup>th</sup> Symposium of the International Society of Exercise and Immunology*, 2024
13. Crane, J.C., Hodgman, C.F., Hunt, R., **LaVoy, EC.** Cardiorespiratory Fitness and Mitochondrial Function Relate to Cytotoxic T cell Function *16<sup>th</sup> Symposium of the International Society of Exercise and Immunology*, 2024
14. **LaVoy, E.**, Tullos, E., Elechi, A., Swartz, M.C., Lacourt, T. Physical activity contributes to fatigue in cancer survivors with a sedentary lifestyle. *American College of Sports Medicine Annual Meeting 2024*, Boston MA May 28-31 2024
15. Gonzalez-Villarreal E., **LaVoy, E.C.**, Lacourt, T.E., Waterman, G., Pan E., Roth, M., Weathers, S., Bai, J., King, T.Z., Wang, J., Swartz, M. Developing a physical activity intervention for adolescent and young adult central nervous system tumor survivors. *American College of Sports Medicine Annual Meeting 2024*, Boston MA May 28-31 2024
16. Markofski, M.M., **LaVoy, E.C.**, Rinehart, S.M., Jennings, K. Cytomegalovirus seropositivity differences in T cell response to an acute cardiorespiratory or resistance exercise bout. *American College of Sports Medicine Annual Meeting 2024*, Boston MA May 28-31 2024
17. Hunt, R., Ali, K., Banh, R., Bolden, M., Laurea, K., McBride, L., Tafish, Z., **LaVoy, E.C.** Can just 15 minutes of moderate-intensity exercise mobilize cytotoxic NK cells

- into circulation? *American Physiology Summit 2024*, Long Beach, CA, April 2024  
**Highlighted in Press Release for Conference**
18. Gonzalez-Villarreal E., **LaVoy, E.C.**, Lacourt, T.E., Waterman, G., Pan E., Roth, M., Weathers, S., Bai, J., King, T.Z., Wang, J., Swartz, M. Developing a physical activity intervention for survivors of adolescent and young adult central nervous system tumors. *Cancer Neuroscience Symposium*, Houston, TX, March 1 2024
  19. Lacourt, T., **LaVoy, E.C.**, Tullos, E., Elechi, A. Swartz, M. Physical Activity (PA) Contributes to Fatigue in Cancer Survivors with a Sedentary Lifestyle. *Cancer Survivorship Retreat, MD Anderson Cancer Center*, Houston TX, February 2024
  20. Ali, K., Hunt, R. Banh, R. McBride, L. Bolden, M., Laurea, K., **LaVoy, E.C.** The effects of 15 minutes vs 30 minutes of moderate intensity exercise on lymphocytes, monocytes, and granulocytes. *Texas Chapter of the American College of Sports Medicine Annual Meeting 2024*, Waco, TX, February 2024.  
**Undergraduate student lead author**
  21. Fuentes, N., Hunt, R. Banh, R. McBride, L. Bolden, M., Laurea, K., **LaVoy, E.C.** Comparison of 15 minutes and 30 minutes of moderate intensity exercise on natural killer cell levels in blood. *Texas Chapter of the American College of Sports Medicine Annual Meeting 2024* Waco, TX, February 2024.  
**Undergraduate student lead author**
  22. Gonzalez-Villarreal E., **LaVoy, E.C.**, Lacourt, T.E., Waterman, G., Pan E., Roth, M., Weathers, S., Bai, J., King, T.Z., Wang, J., Swartz, M. Developing a Physical Activity Intervention for Adolescent and Young Adult (AYA) Central Nervous System Tumor Survivors. *MD Anderson Cancer Center Energy Balance and Cancer Retreat*, Houston, TX, December 2023.
  23. Markofski, M. Jennings, K., Lee, C.Y., Gordon, M.J., **LaVoy, EC**, Fares, S., Ferrajoli, A., Basen-Enquist, K.M. Monocyte Function in CLL Patients in a Physical Activity Intervention Dependent on Treatment: HEALTH4CLL Study. *Annual Meeting of the American College of Sports Medicine*, Denver, CO May 30-June 2, 2023
  24. So, C., **LaVoy, E.C.**, Harmouch, S., Alfano, C. Sleep Patterns and Biomarkers of Stress Among Women with a History of Sexual Abuse in Childhood. *Society of Biological Psychiatry Annual Meeting*, San Diego, CA 2023
  25. **LaVoy, EC**, Gupta, P., Schadler, K., Hodgman, C.F., Markofski, M.M. Natural Killer Cell Function in Mice with Pancreatic Cancer Does Not Differ with Exercise Training. *Annual Meeting of the American College of Sports Medicine*, Denver, CO May 30-June 2, 2023
  26. Pareek, S., Ballaro, R., Savage, H., Lee, J.H., Patel, H., **LaVoy, E.** McAllister, F., Schadler, K. Aerobic exercise reduces immunosuppression in the pancreatic adenocarcinoma microenvironment in an intensity-dependent manner. Evening of Discovery, University of Texas MD Anderson Cancer Center UTHealth Houston GSBS, Houston TX, 2023.

27. **LaVoy, E.C.**, Crane, J., Gordon, M., Markofski, M., Simpson, R., Lee, C., Fares, S., Basen-Engquist, K., Ferrajoli, A. Prior Cancer Therapy Does Not Impact T-lymphocytes and Physical Function in Adults with Chronic Lymphocytic Leukemia: Results from the HEALTH4CLL Pilot Study *American Physiological Society Annual Meeting*, Long Beach, CA, April 2023
28. Hodgman, CF, Hunt, R., Crane, JC., and **LaVoy, EC**. Sex Influences Peripheral Blood Mononuclear Cell Survival and Interferon-Gamma Production following Culture in Low-Glucose or High-Lactic Acid Media". *15<sup>th</sup> Symposium of the International Society of Exercise and Immunology*, Tucson, AZ Oct 24-27, 2022
29. Hunt, R., Elzayat, M., Laughlin, M., Markofski, M.M., **LaVoy, EC**. Characterization of the Mobilization of Transitional Memory CD4+ and CD8+ T-cells During and After an Acute Bout of Exercise" *15<sup>th</sup> Symposium of the International Society of Exercise and Immunology*, Tucson, AZ Oct 24-27, 2022
30. Markofski, M. Jennings, K., LaVoy, EC. Monocytes do not respond the same for a duration- and intensity-matched bouts of treadmill walking or resistance exercises. *15<sup>th</sup> Symposium of the International Society of Exercise and Immunology*, Tucson, AZ Oct 24-27, 2022
31. Crane, JC., Gordon, MJ., Basen-Engquist, K, Ferrajoli, A, Markofski, MM., Lee, C, Fares, S, Simpson, RJ, and **LaVoy, EC**. Relationship between T-lymphocytes and physical function in adults with chronic lymphocytic leukemia: results from the HEALTH4CLL pilot study. *15<sup>th</sup> Symposium of the International Society of Exercise and Immunology*, Tucson, AZ Oct 24-27, 2022
32. Pareek, S., Ballaro, R., Savage, H., Lee, J.H., Patel, H., **LaVoy, E**. McAllister, F., Schadler, K. Aerobic exercise reduces immunosuppression in the pancreatic adenocarcinoma microenvironment in an intensity-dependent manner. *15<sup>th</sup> Symposium of the International Society of Exercise and Immunology*, Tucson, AZ Oct 24-27, 2022
33. **LaVoy, E.C.**, Hunt, R.M., Elzayat, M.T. CD57 Expression Identifies Highly Exercise Responsive Cells Even Among Early Differentiated CD8 T Cells. *Annual Meeting of the American College of Sports Medicine*, San Diego, CA June 1-4, 2022  
Selected for thematic poster presentation
34. Lee, C., Gordon, M., Fares, S., **LaVoy, E.**, Markofski, M., Simpson, R. Ferrajoli, A., Basen-Engquist, K. Optimization Of Behavioral Interventions for Patients with Chronic Lymphocytic Leukemia: The HEALTH4CLL Study. *Annual Meeting of the American College of Sports Medicine*, San Diego, CA June 1-4, 2022
35. Gordon, M. et al. T Cell Phenotypic Changes in Participants of a Multiphase Optimization Strategy (MOST) Behavioral Intervention of Healthy Diet and Exercise in Patients with Chronic Lymphocytic Leukemia. *European Hematology Association, Hybrid June 10 2022*
36. Gordon, M., Lee, C., Fares, S., **LaVoy, E.**, Markofski, M., Ferrajoli, A., Basen-Engquist, K. The HEALTH4CLL study: A multiphase optimization strategy (MOST)

- behavioral intervention in patients with chronic lymphocytic leukemia (CLL). *American Association for Cancer Research International Meeting Advances in Malignant Lymphoma: Maximizing the Basic-Translational Interface for Clinical Application* Boston, Mass June 23-26, 2022
37. Gupta, P., Hodgman, C.F., Schadler, K., **LaVoy E.** Effect of Three Different Exercise Interventions on Pancreatic Tumor Growth With and Without Gemcitabine in Mice. *Translating Energy Balance From Bench to Communities: Application of Parallel Animal-Human Studies in Cancer*, Online July 8-10, 2021  
**Selected for live lightening poster presentation (oral)**
38. **LaVoy, E.**, Elzayat, M. Markofski, M. Relationship Between Perceived Exercise Intensity and Natural Killer Cell Mobilization After Exercise. *Annual Meeting of the American College of Sports Medicine*, Online June 1-5, 2021
39. Batatinha, H., Diak, D.M., Niemi, G.M., Mylabathula, P., Baker, F., Smith, K.A., Zuniga, T.M., Park, Y., **LaVoy, E.C.**, Katsanis, E., Simpson, R.J. Human Lymphocytes Mobilized with Exercise Extend Survival and Lower Leukemic Burden in Xenogeneic Mice. *Annual Meeting of the American College of Sports Medicine*, Online June 1-5, 2021
40. Markofski, M.M., Jennings, K., Hodgman, C.F., Warren, V.E., and **LaVoy, E.C.** Decrease in physical activity during SARS-CoV-2 pandemic linked to depression in women but not men. *Annual Meeting of the American College of Sports Medicine*, Online June 1-5, 2021
41. Gupta, P., Schadler, K.L., **LaVoy, E.** Comparing Three Exercise Interventions on Pancreatic Tumor Growth In Mice During Chemotherapy Treatment *American Physiology Society Integrative Physiology of Exercise*, Online November 9-13 2020  
**Oral Presentation**
42. **LaVoy, E.**, Gupta, P., Schadler, K.L. Tumor Growth Reduced and Tumor-Infiltrating Lymphocytes Increased with Exercise Training in Mouse Model of Pancreatic Cancer *American Physiology Society Integrative Physiology of Exercise*, Online November 9-13 2020 **Highlighted in Press Release for Conference**
43. Reesor-Oyer, L., O'Connor, D. P., Murillo, R., **LaVoy, E.**, & Hernandez, D. C. (2020). Leisure time physical activity and sedentary behavior partially mediate the income-overweight/obesity relationship. *Health Behavior Research*, 3(2), 29. doi: 10.4148/2572-1836.1091 *Conference canceled due to Pandemic*
44. **LaVoy, E.C.**, Elzayat, M., Markofski, M. Acute Resistance Exercise Fails to Improve Influenza Vaccine Response In Older Adults *Annual Meeting of American College of Sports Medicine*, Online June 2020
45. Hodgman C.F., **LaVoy, E.C.**, Murillo, R., Zhao, H., Obasi, E., McNeill, L., O'Connor, D.P., Hernandez, D.C. Acculturative Stress & Discrimination Predicts Inflammation among Hispanic Immigrants. *HEALTH Research Institute Conference*, Houston, TX. January 2020

46. Palmer, C., Alfano, C., Weems, C., **E.C. LaVoy**. Childhood sleep patterns longitudinally predict later post-traumatic stress after Hurricane Harvey. *Annual Meeting of the World Sleep Congress* November 2019
47. **LaVoy, E.C.**, Elzayat, M.T., Cardenas, M.A., Levitt, M.M., Cook, C.A., M. Phillips. Improved Immune Profile Accompanying Increased Fitness Following an Exercise Intervention Among Overweight Older Women. *Annual Meeting of American College of Sports Medicine* Orlando, FL. June 2019
- Featured in thematic poster section**
48. Gupta, P., Bigley, A.B., **E.C. LaVoy**. Differential Natural Killer Cell Cytotoxicity Response To Post-exercise Autologous Serum Based On Cytomegalovirus Serostatus. *Annual Meeting of American College of Sports Medicine* Orlando, FL. June 2019
49. Elzayat, M.T., **E.C. LaVoy**. Can a dynamic warm-up reduce the magnitude of immune perturbation following vigorous aerobic exercise? *Annual Meeting of American College of Sports Medicine* Orlando, FL. June 2019
50. Graff, R.M., Jennings, K., Davies, N.A., Carrillo, A.E., **LaVoy, E.C.**, Ryan, E.J., M.M. Markofski. A short-term Paleolithic dietary intervention does not alter adipokines implicated in obesity. *Annual Meeting of American College of Sports Medicine* Orlando, FL. June 2019
51. Palmer, C.A., Alfano, C.A., Weems, C.F., E. C. LaVoy. Premorbid Childhood Sleep Patterns Predict Post-Traumatic Stress after Hurricane Harvey. *SLEEP*, San Antonio, TX, June 2019.
52. **LaVoy, E.C.**, Lopez-Gamundi, P., M.C. Wardle. Reward Functioning Following an Acute Bout of Exercise among Healthy Adults. *Psychoneuroimmunology Research Society Annual Scientific Meeting*, Miami, FL, June 2018.
53. Wardle, M.C., Lopez-Gamundi, P., **E.C. LaVoy**. Effects of an Acute Bout of Exercise on Reward Functioning. *Society of Biological Psychiatry*, New York City, NY, May 2018.
54. Lee, J., **LaVoy, E.C.**, Y. Park. Protective mechanisms of physical activity in vascular dysfunction in high fat diet-induced obesity via attenuation of NLRP3 inflammasome activation in mouse aorta. *Experimental Biology*, San Diego, CA, April 2018.
55. P. Gupta, A. Bigley, and **E.C. LaVoy**. Baseline natural killer cell cytotoxicity is enhanced in the presence of 1h post-exercise autologous serum. *International Society for Exercise and Immunology Symposium* Coimbra, Portugal, July 2017.
56. **LaVoy, E.C.**, P. Gupta, A. Bigley. Natural killer cell cytotoxicity is enhanced in the presence of 1h post-exercise serum. *Psychoneuroimmunology Research Society Annual Scientific Meeting* Galveston, TX, June 2017.
57. **LaVoy, E.C.**, Hussain, M., Reed, J., Kunz, H., Pistillo, M., Bigley, A., and R.J. Simpson. The impact of exercise intensity and cytomegalovirus infection on immune cell redeployment by exercise: T-cell cytokine expression. *American Physiological*

- Society meeting: Inflammation, Immunity, and Cardiovascular Disease* Westminster, CO. August 2016
58. Graff, R.M., Kunz, H., Agha, N.H., Baker, F.L., Azadan, R., Rooney, B.V., Bond, R.A., Bollard, C.M., **LaVoy, E.**, and R. J. Simpson. Antigen-specific CD8+ T-cells are mobilized with exercise via  $\beta$ 2-adrenergic receptor signaling pathways: implications for immunotherapy. *2016 Annual Meeting of American College of Sports Medicine, Boston MA*
59. Kunz, H., Spielmann, G., **LaVoy, E.**, Agha, N. Graff, R.M., Bollard, C.M., and R.J. Simpson. Enhancing the generation of virus-specific T-cells with exercise for immunotherapy. *2016 Annual Meeting of American College of Sports Medicine, Boston MA*
60. Gupta, P., Bigley, A.B., and **E.C. LaVoy**. Cellular subset shifts or serum factors: exploring the mechanisms underlying exercise-induced changes in natural killer cell cytotoxicity. *MD Anderson Cancer Center Energy Balance and Cancer Retreat, Houston, TX, January 2016.*
61. **LaVoy, E.C.**, Blaney, J.W., Hanley, P.J., Bollard, C.M. and R.J. Simpson. Acute exercise enhances the expansion of cytotoxic T-cells specific to leukemia and melanoma antigens: implications for adoptive transfer immunotherapy? *International Society of Exercise Immunology Symposium, Newcastle, Australia, September, 2013.*
62. **LaVoy, E.C.** and R.J. Simpson. Cytomegalovirus infection and acute exercise alters the type 1/type 2 cytokine balance in both low (CD27+) and highly (CD27-) differentiated subsets of CD4+ and CD8+ T-cells. *10<sup>th</sup> Symposium of the International Society of Exercise and Immunology, Oxford, UK, July 2011.*
63. **LaVoy, E.C.**, Bigley, A.B., Spielmann, G., Rector, J.L., Morrison, M.R., and R.J. Simpson. Effect of HSV-1 infection on the frequency of senescent T-cells and their exercise-induced mobilization. *American College of Sports Medicine Annual Meeting, Denver, CO, June 2011.*
64. **LaVoy, E.C.**, Lowder, T.W., and R.J. Simpson. Acute exercise alters the Type 1/Type 2 cytokine balance in both low (CD27+) and highly (CD27-) differentiated subsets of CD4+ and CD8+ T cells. *American Association of Immunologists 98<sup>th</sup> Annual meeting, San Francisco, CA, May 2011.*
65. **LaVoy, E.C.**, Morrison, M.R., Bigley, A.B., Spielmann, G., Rector, J.L. and R.J. Simpson. Effect of HSV-1 infection on the frequency of senescent T-cells and their exercise-induced mobilization. *American College of Sports Medicine Texas Chapter Annual Meeting, Austin, TX, February, 2011.*
66. **LaVoy, E.C.** and McFarlin, B.K. A Rapid, Flow Cytometry-Based Assay for the Determination of Natural Killer Cell Activity in Isolated Periphery Blood Mononuclear Cells. *American College of Sports Medicine Texas Chapter Annual Meeting, Houston, TX, February, 2010.*

## RESEARCH SUPPORT

### Current Research Support

1. NIH/NIA: 1R01AR084021                      Gorniak (PI)                      06/02/2025 – 05/31/2029  
Mechanical and non-mechanical contributions to chronic neck, shoulder, arm, and back pain in full-busted women  
Role: Co-I
2. CPRIT                      Swartz, LaVoy (MPI)                      03/1/2025 – 02/28/2029  
Cancer-related fatigue and its biological contributors in adolescent and young adult brain tumor survivors: effects of a telehealth intervention  
Role: PI
3. UH/GEAR                      LaVoy (PI)                      5/2024 – 11/2025  
Exercise to Enhance NK Cell Therapy for Osteosarcoma  
Role: PI
4. NIH/NIA: 1R56AG080816-01                      Gorniak (PI)                      09/20/2023-08/31/2026  
Cortical complications of perimenopause and obstructive sleep apnea in underrepresented middle-aged women with type 2 diabetes  
Role: Co-I
5. CLL Global Research Foundation                      (Ferrajoli (PI))                      07/01/2023 - 02/14/2026  
A randomized phase II waitlist control trial of behavioral interventions in high-risk comorbid patients with chronic lymphocytic leukemia  
Role: co-PI on subaward

### Completed Research Support

1. UH CLASS Research Project Grant                      LaVoy (PI)                      01/2024 – 12/2024  
Inflammation in patients with chronic lymphocytic leukemia: Effects of a physical activity intervention
2. NASA: NNJ14ZSA001N-MIXEDTOPICS                      Simpson (PI)                      06/2016-12/2021  
Impact of an ISS mission on the anti-viral and functional properties of NK-cells, T-cells, B-cells, and dendritic cells  
Role: Co-I
3. UH CLASS Research Progress Grant                      LaVoy (PI)                      01/2021-12/2021  
Exercise and the Tumor Microenvironment
4. UH Health Research Institute                      Gorniak (PI)                      09/2019 – 08/2020  
Functional Cortical Deficits and Cortical Hemodynamic Changes in Minority Older Adults with Type II Diabetes  
Role: Co-I
5. ACSM Research Foundation                      LaVoy (PI)                      06/2019 – 06/2020

Identifying the Optimal Exercise Intervention and its Mechanism during Pancreatic Cancer Treatment

6. NIH/NIA: R03AG052778                      LaVoy (PI)                      09/2017 – 04/2019  
Resistance Exercise to Improve Vaccine Outcomes in Older Adults
7. UH CLASS Project Completion Grant                      LaVoy (PI)                      01/2019 –08/2019  
The effects of cytomegalovirus infection on the immune response to an exercise training intervention
8. UH CLASS Research Project Grant                      LaVoy (PI)                      01/2019 –08/2019  
Identifying the optimal exercise intervention and its mechanisms during pancreatic cancer treatment
9. UH CLASS Research Project Grant                      Park (PI)                      01/2017 –08/2017  
The inflammasome in obesity-induced vascular dysfunction: physical activity and the immune system  
Role: Co-I
10. UH CLASS Research Project Grant                      LaVoy (PI)                      01/2016 –08/2016  
Determining the relationship between physical fitness and disease in Chronic Lymphocyte Leukemia patients
11. Texas Obesity Research Center Seed Funding                      LaVoy (PI)                      01/2016 –08/2016  
Adenovirus 36 Infection and Childhood Obesity: Immune Responses and Lifestyle Interventions
12. Texas ACSM Student Research Development Award                      LaVoy (PI)                      01/2011 –08/2011
13. Texas ACSM Student Research Development Award                      LaVoy (PI)                      01/2010 –08/2010

Research Funding Applications Submitted but Unfunded

1. NIH-NCI                      LaVoy, Swartz (MPI)                      12/1/2024 - 11/30/2029  
RISE-YA: a novel intervention for young adult brain tumor survivors with cancer related fatigue
2. McDougall Brain Metastasis Research Program                      Swartz (PI)                      09/01/2024- 08/31/2025  
Utilization of patient-reported outcomes and hematological indices as predictors of survival in AYA patients with brain metastasis: longitudinal analysis and joint mode  
Role: Co-I
3. AHA Transformational Project Award                      Caslin (PI)                      7/1/2024 – 6/30/2027

Can exercise mitigate the immunometabolic changes with weight cycling?  
Role: Co-I

4. CPRIT Swartz, LaVoy (MPI) 03/1/2024 – 02/28/2028  
Cancer-related fatigue and its biomarkers in adolescent and young adult brain tumor survivors: effects of a telehealth intervention  
Role: Co-PI
5. NIH-NCI Markofski (PI) 04/01/2023 – 03/31/2025  
Interaction of the Immune System and Microbiome in Colorectal Cancer Survivors  
Role: Co-I
6. NIH-NCI sub-award through Emory; Bai (PI) 12/01/2023 – 11/30/2028  
Virtually Delivered Exercise Intervention with Behavioral Coaching to Reduce Cancer-Related Cognitive Impairment in AYA  
Role: PI on subaward
7. Cure Childhood Cancer sub-award through MDA; Gordon (PI) 8/1/2023 -7/31/2025  
Exercise as a novel approach to enhance NK cells therapeutic effect against Osteosarcoma  
Role: PI on subaward
8. American Cancer Society Markofski (PI) 01/01/2023-01/01/2024  
Resistance or Cardiorespiratory exercise training to improve immune function in colorectal cancer survivors  
Role: Co-I
9. Pediatric Cancer Foundation Grant for Osteosarcoma Research Gordon (PI) 01/01/2023-01/01/2024  
Exercise as a novel adjuvant to Natural Killer cell therapy against Osteosarcoma  
Role: Co-I
10. DOD PRMRP Gorniak/Harrison (Co-PI) 01/01/2023-12/31/2026  
The Impact of Sex Hormones and Sleep Disruption on Vision Function, Proprioception, Motor Function, and Cognition in Females with Type II Diabetes  
Role: Co-I
11. UH Grants to Enhance and Advance Research LaVoy (PI) 05/01/2022-11/01/2023  
Immunometabolism of Exercise
12. National Aeronautical and Space Administration LaVoy (PI) 01/01/2022-01/01/2023  
Evaluating leukocyte adaptations to acute and chronic exercise
13. Children's Cancer Research Fund Gordon (PI) 02/01/2022-02/01/2024  
Exercise as a novel approach to enhance NK cell therapy against Osteosarcoma  
Role: Co-I

14. NIH-NIDA                      Gorniak (PI)                      10/01/2021-09/30/2023  
Early detection of neurodegeneration in COVID-19 survivors who smoke or vape  
Role: Co-I
  
15. Chance For Life Foundation   Gordon (PI)                      11/01/2021-10/31/2023  
Exercise as a novel approach to enhance NK cells therapeutic effect against  
Osteosarcoma  
Role: Co-I
  
16. NIH-NIA                      Gorniak (PI)                      08/01/ 2021 – 07/30/2023  
Sex-Difference and Inflammation Impacts on Vision, Proprioception, and Activities of  
Daily Living in Persons with Type 2 Diabetes Ahead of Conversion to Dementia  
Role: Co-I
  
17. NIH-NIA                      Gorniak (PI)                      04/01/2021 – 03/30/2026  
Elucidating sex-hormone, adiposity, and inflammation contributions to cognitive-  
sensorimotor deficits and dysfunctional cortical activation in persons with type II  
diabetes ahead of conversion to dementia  
Role: Co-I
  
18. Centers for Medicare & Medicaid Services Office of Minority Health Research Grant  
Program                      Alfano/LaVoy (Co-PI)                      09/01/2020-08/31/2022  
Sleep health, inflammation, and stress among African American adults: identifying  
vulnerabilities and opportunities  
Role: Co-PI
  
19. UH Grants to Enhance and Advance Research   LaVoy (PI)   05/01/2021-11/01/2022  
Exercise to Improve Immuno-metabolism in Cancer
  
20. Health and Environmental Sciences Institute Thrive   LaVoy/Schadler (co-PI)   01/2020-  
12/2021  
Identifying causes and potential mitigation of loss of cardiorespiratory fitness related to  
cancer
  
21. American Pecan Council                      Johnston (PI)                      09/01/2019-08/30/2020  
Preventing the Freshman 15: Using Pecans as a Healthful Snack  
Role: Co-I
  
22. Center for Clinical and Translational Science   Wardle (PI)   09/01/2019 – 08/30/2021  
Stress, inflammation, and prescription opioid misuse  
Role: Co-I
  
23. NIH: NCI                      Markofski (PI)                      07/01/2019-06/30/2021



PEP7397 Advanced Selected Topics in Human Performance: Exercise Oncology (Spring 2024)

PEP7397 Advanced Selected Topics in Human Performance: Inflammation: Causes and Consequences (Spring 2023)

KIN 3304 Human Structure and Physical Performance (2016-present)

PEP7397 Advanced Selected Topics in Human Performance: Physiology of Extreme Performance (Fall 2021)

PEP 7398 Advanced Special Problems in Human Performance: Statistics (Fall 2020-Spring 2021)

PEP 8304 Journal Colloquium (2016-2019)

PEP 8350 HHP Candidacy Project Research

PEP 8699 Doctoral Dissertation

PEB 1102 Indoor Cycling (2009-2011)

PEB 1154 Rhythmic Aerobics (2009-2011)

Northern Michigan University, Department of Chemistry (2007-2008):

CH321 Organic Chemistry I Laboratory

CH322 Organic Chemistry II Laboratory

Northern Michigan University, Department of Biology (2005-2007):

BI203 Medical Microbiology Laboratory

BI431 Plant Physiology Laboratory

### Courses Developed

University of Houston, Department of Health and Human Performance:

PEP 7397 Exercise Oncology (2024)

Graduate level course offered Spring 2024

PEP 7397 Inflammation: Causes and Consequences (2023)

Graduate level course in applied immunology offered Spring 2023

KIN 3304 Human Structure and Physical Performance (2016); second revision (2021)

Undergraduate anatomy course offered since Summer 2016; updated from lecture only to lecture-laboratory for offer Fall 2021

PEP 7397 Physiology of Extreme Performance (2021)

Graduate level course in exercise physiology offered Fall 2021

PEP 7398 Advanced Special Problems in Human Performance: Statistics (Fall 2020)

Graduate level course in multivariate statistics offered Fall 2020 and Spring 2021

### Candidacy, Thesis, Comprehensive, and Dissertation Committees

Undergraduate Honor's Thesis:

Nicole Dequina (completed: May 2018) (reader)

Masters' Thesis Committees:

External:

Christina Dollinger, UH Comparative Culture Studies (reader) defended November 2018

Graduate Student Candidacy Project Committees (completed):

Rebekah Hunt (December 2022)

Justin Crane (November 2022)

Charles Hodgman (April 2021)

Mahmoud Elzayat (April 2021)

Priti Gupta (May 2017)

Jonghae Lee (May 2017)

Bridgette Rooney (April 2017)

Rachel Graff (January 2017)

Doug Diak (April 2016)

Graduate Student Comprehensive Exam Committees (completed):

Justin Crane (June 2023)

Rebekah Hunt (June 2023)

Charles Hodgman (December 2021)

Mahmoud Elzayat (June 2021)

Bridgette Rooney (December 2018)

Priti Gupta (April 2018)

Jonghae Lee (April 2018)

Rachel Graff (April 2018)

Doug Diak (August 2017)

Dissertation Committees:

External:

Sumedha Pareek, The University of Texas Health Sciences Graduate School of Biomedical Sciences, Houston TX (reader): defended November 2025

Christine So, University of Houston Clinical Psychology (reader): defended July 2022

Abdollah Serajian, Shahid Beheshti University, Tehran, Iran (reader): defended September 2018

Internal (UH Department of Health & Human Performance):

Rebekah Maddux (chair): defended August 2025

Charlie Hodgman (chair): defended July 2025

Justin Crane (chair): defended April 2025

Molly Vega (reader): defended April 2024

Mahmoud Elzayat (chair): defended March 2022

Priti Gupta (chair): defended November 2020

Doug Diak (co-chair): defended September 2020

Layne Reesor (reader): defended July 2020

Bridgette Rooney (co-chair): defended June 2020

Rachel Graff (reader): defended April 2020

Jonghae Lee (reader): defended December 2019

### Student Achievements

#### Undergraduate Mentees:

Nour Chibani (undergraduate research mentee)

Selected for Provost's Undergraduate Research Scholarship, Spring 2025

Stanley Chan (undergraduate research assistant)

Selected for Provost's Undergraduate Research Scholarship, Spring 2025

Michael Herskowitz (undergraduate research mentee)

Departmental Award for Undergraduate Excellence in Exercise Science—Fall 2024

Nathan Fuentes (undergraduate research mentee)

1. Selected for Summer Undergraduate Research Fellowship, 2024

2. Selected for Provost's Undergraduate Research Scholarship, Spring 2024

3. Presented research poster at TACSM annual meeting, 2024

4. Presented research poster at UH Undergraduate Research Day, 2024

Kais Ali (undergraduate research mentee)

1. Presented research poster at TACSM annual meeting, 2024

2. Presented research poster at UH Undergraduate Research Day, 2024

Kelley Doan (undergraduate research mentee)

Selected for Provost's Undergraduate Research Scholarship, Spring 2023

Accepted to University of Texas at San Antonio's Physician Assistant program

Lynnsie McBride (undergraduate research mentee)

Selected for Provost's Undergraduate Research Scholarship, Spring 2023

Accepted to Long School of Medicine in San Antonio Texas

McArthur Bolden (undergraduate research mentee)

Departmental Award for Undergraduate Excellence in Exercise Science—Spring 2023

Accepted to

Jaden Corpus (undergraduate research mentee)

Departmental Award for Undergraduate Excellence in Exercise Science—Spring 2022

Brian Chung (undergraduate research mentee):

1. Selected for Provost's Undergraduate Research Scholarship, Spring 2021

2. Delivered poster presentation 'The Effects of Including a Pre-Exercise Warm-up on Mood and Affect After Exercise' at the University of Houston 2021 Undergraduate Research Day Symposium

Accepted to Paul Foster School of Medicine Texas Tech at El Paso TX

#### Graduate Mentees:

Kingsley Oforka (PhD student, 2024-present)

1. Departmental elevator speech contest award, 2025

2. University of Houston Presidential Fellowship, 2024-2026

Justin Crane (PhD student 2021-2025)

1. HHP doctoral student excellence award, 2024
2. Poster Presentation Award, ISEI 2022 meeting
3. Doctoral Student Research Development Award, 2022, Texas Chapter of the American College of Sports Medicine

Rebekah Hunt (PhD student 2020-2025)

1. Winner of 2024-2025 University of Houston Teaching Excellence Award
2. Doctoral Student Research Development Award, 2022, Texas Chapter of the American College of Sports Medicine
3. Departmental elevator speech contest award, 2023, 2024

Charles Hodgman (PhD student 2019-2025):

1. HHP doctoral student excellence award, 2023
2. Departmental elevator speech contest award, 2023, 2024
3. Cullen Student Success Fellowship, Graduate School, University of Houston, 2022
4. Poster Presentation Award, ISEI 2022 and 2024 meetings
5. First place Research Presentation, 2020 annual meeting of the Texas Chapter of the American College of Sports Medicine
6. Doctoral Student Research Development Grant, 2020, Texas Chapter of the American College of Sports Medicine
7. Submitted grant for external funding: Hodgman, C., LaVoy, E.C. (Faculty advisor). "Functional Differences of Exercise Mobilized Lymphocytes in Response to Lactic Acid: American College of Sports Medicine Research Foundation Submitted January 2020

Priti Gupta (PhD student 2015-2020):

1. Post-doctoral fellowship with Dr. Steven Lin, MD Anderson Cancer Center
2. Abstract selected for Oral Presentation, *Translating Energy Balance from Bench to Communities: Application of Parallel Animal-Human Studies in Cancer Conference 2021 Conference* (Online)
3. Abstract selected for Oral Presentation, *American Physiology Society Integrative Physiology of Exercise 2020 Conference* (Online)
4. Finalist, Poster Presentation, 2016 Energy Balance and Cancer Research Retreat, MD Anderson Cancer Center, Houston TX

## **SERVICE**

### Training

*Workshop; NIH-Funded Transdisciplinary Research on Energetics and Cancer (2023)*

*AJP-REGU New Reviewer Training (2020)*

*Workshop: Rigor and Reproducibility (2019)*

*Workshop: Scientific Communication Advances Research Excellence (2019)*

*Workshop: Gulf Coast Consortia Research Mentor Training (2018)*

*Workshop: Gulf Coast Consortia Entering Mentoring (2015)*

Editor:

Special Issue in *Expert Reviews in Molecular Medicine*: The molecular mechanism of exercise for prevention and adjuvant therapy in inflammatory chronic diseases (launched December 2024)

Review Editor:

Exercise Physiology Section in *Frontiers in Physiology* and *Frontiers in Sports and Active Living*

Ad hoc Manuscript Reviewer:

Aging Cell

American Journal of Lifestyle Medicine

Antioxidants

Applied Physiology, Nutrition, and Metabolism

BioResearch Open Access

BMC Infectious Diseases

Brain Behavior and Immunity

Complementary Therapies in Medicine

European Journal of Cancer Care

European Journal of Sport Science

Exercise Immunology Review

Frontiers in Immunology

Frontiers in Medicine

Frontiers in Physiology

Immunity & Ageing

Immunology

Immunology Letters

Journal of Applied Physiology

Journal of Clinical and Laboratory Medicine

Journal of Immunological Methods

Journal of Sport Science

Medicine & Science in Sports & Exercise

Oxidative Medicine and Cellular Longevity

Physiology and Behavior

Psychoneuroendocrinology

Sports Medicine

Translational Exercise Biomedicine

Data Safety and Monitoring Board Member:

“An Integrated Personalized Feedback Intervention for Hazardous Drinkers with Elevated Anxiety Sensitivity and Subclinical PTSD” NIH/NIAAA (1F31AA029600 - 01A1)

Antoine Lebeaut, PI

(2022)

Awards Committee Member (appointed):

American Physiological Society; 2023-2026

American College of Sports Medicine Research Foundation; 6/1/2023-5/31/2026

Grant Reviewer:

American Institute for Cancer Research grant review panel (2022-2025)

HEALTH Center for Addictions Research and Cancer Prevention Pilot Grant (2024)

Natural Sciences and Engineering Research Council of Canada Discovery Grant (2025)

NASA review panel (2024)

NASA BRASH review panel, chair (2022)

NASA Musculoskeletal and Exercise Physiology Review Panel (2020)

NASA TRISH post-doctoral fellowship program (2019)

World Cancer Research Fund International Grant Programme (2018)

Canada Foundation for Innovation John R. Evans Leaders Fund (2017)

Professional Affiliations

HEALTH Center for Addictions Research and Cancer Prevention Affiliate, University of Houston, 2023-

American College of Sports Medicine (National and Texas Chapter)

*Served as an abstract and poster judge for undergraduate and graduate student presenters at the 2017, 2019-2022, 2025 TACSM annual meetings*

*Appointed to Research Review Committee for National (2024-present)*

American Physiological Society

*Member of the AJP-Regu early career reviewer board, 2020-present*

International Society of Exercise Immunology

*Board member*

University Committees

1. University of Houston Health Professions Advisory Committee (2023-present)
2. University of Houston Transportation & Parking Advisory Committee (2022-2023)
3. Member, Cougar Card Advisory Committee (October 2018-May 2019)
4. Advisor, Registered Student Organization: Pre-health mentorship program (June 2018-May 2019); Sustainable Solutions Collective (November 2024- Present)

College Committees

1. Member, Graduate Summer Research Excellence Fellowship Award Review Committee (2024)
2. Member, CLASS Dean's Travel Award Committee (2024)

### Department Committees

1. Member, Graduate Research Degrees Committee (2015-present)
  - Executive Committee (2021-2024)
  - Subcommittee for GTF ranking (2018-2021)
  - Subcommittee for Student Petitions (2016-2020)
  - SOP review subcommittee (2016)
  - APAR review subcommittee (2015)
2. Member, Undergraduate Committee (2017-present)
3. Member, Faculty Review Committee (2019-2021)
4. Member, Exercise Science Undergraduate Curriculum Review Committee (2022-present)
5. Independent Faculty Advocate for Students facing Academic Honesty Policy Hearings (2020-present)
6. CLASS-Departmental Research Liaison (2021- present)
7. Member, Faculty Search Committee-Instructional Faculty in Exercise Science (2024)
8. Member, Faculty Search Committee- Laboratory of Integrated Physiology (2022)
9. Member, Faculty Search Committee-Sports and Fitness Administration (2016 and 2017)

### **AWARDS, HONORS, AND SCHOLARSHIPS**

Affiliate, HEALTH Center for Addictions Research and Cancer Prevention, an NIH/NIMHD funded national center, 2023

Fellow, Transdisciplinary Research on Energetics and Cancer, an NCI-funded training workshop 2023

Provost's Travel Fund: 2016, 2017, 2018, 2024

Travel award from the American Physiological Society to present at the 2016 APS intersociety meeting, August 2016.

Travel award from the Psychoneuroimmunology Research Society (PNIRS) to present at the 2014 PNIRS annual meeting, June 2014.

Doctoral Research Achievement Award, post-candidacy, Department of Health and Human Performance, University of Houston, April 2014.

Finalist for Excellence in Research Award, Energy Balance in Cancer Prevention & Survivorship Research Retreat, February 2014.

1<sup>st</sup> place, 'Elevator Speech Contest', Department of Health and Human Performance, University of Houston, October, 2013.

Dissertation Completion Fellowship, College of Liberal Arts and Social Sciences, University of Houston, Fall 2013-Spring 2014.

Doctoral Student Research Assistantship, College of Liberal Arts and Social Sciences, University of Houston, Fall 2012-Spring 2013.

Doctoral Research Achievement Award, pre-candidacy, Department of Health and Human Performance, University of Houston, April 2012.

Best Presentation (doctoral category), Texas Chapter of the American College of Sports Medicine Presentation Title: "Effect of HSV-1 infection on the exercise-induced mobilization of T-cell subsets". 2011

Doctoral Student Research Grant. Texas Chapter of the American College of Sports Medicine "Does Exercise in sub-freezing temperatures affect immune function?" 2010

Perrigo Undergraduate Research Fellowship, Life Science Institute, University of Michigan, Summer 2004

Excellence in Education Research Program Grant, Northern Michigan University  
June 2007

Charles C Spooner Graduate Student Research Grant Program, Northern Michigan University  
June 2006

Presidential Harden Scholarship, Northern Michigan University, 2001-2005