

CURRICULUM VITAE

EMILY C. LAVOY

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EDUCATION

Doctor of Philosophy in Kinesiology, Physiology emphasis, Department of Health and Human Performance, University of Houston, 2014

Dissertation: Acute exercise to improve adoptive transfer immunotherapy

Supervisor: Dr. Richard J Simpson

Master of Science, Immunology emphasis, Department of Biology, Northern Michigan University, 2008

Thesis: T cell-independent antibody response during viral infection

Supervisor: Dr. Osvaldo Lopez

Bachelor of Science, Physiology emphasis, Department of Biology, Northern Michigan University, 2005

Summa cum Laude

ACADEMIC APPOINTMENTS

University of Houston, Houston TX

Associate Professor, with tenure Department of Health and Human Performance, September 2022-present

Assistant Professor Department of Health and Human Performance, August 2015-2022

Post-doctoral Research Fellow Laboratory of Integrated Physiology, Department of Health and Human Performance, May 2014-May 2015

OTHER PROFESSIONAL EXPERIENCE

University of Houston, Houston TX

PhD Research Assistant, Department of Health and Human Performance, 2011-2014

PhD Teaching Fellow, Department of Health and Human Performance, 2009-2011

Louisiana State University Health Sciences Center, New Orleans LA

Laboratory Manager/Research Assistant, Department of Gene Therapy, 2008- 2009

Northern Michigan University, Marquette MI

Adjunct Faculty, Department of Chemistry, 2007-2008

Graduate Teaching Fellow, Department of Biology, 2005-2007

PUBLICATIONS

Peer-Reviewed Journal Articles

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

I.F. denotes Journal Impact Factor

1. **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 (I.F. 15.1)
2. 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 (I.F. 4.4)
3. #Lee, J., Zarezadehmehrizi, A., **LaVoy, E.C.**, Markofski, M.M., Park, Y. (2023) 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 (I.F. 3.5)
4. So, C.J, **LaVoy, E.**, Harmouch, S, Alfano, C.A. (2023) 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 (I.F. 6.3)
5. #*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 (I.F. 11.467)
6. #*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 (I.F. 2.1)
7. #*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 (I.F. 3.674)
8. 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 (I.F. 11.151)
9. Batatinha, H., Diak, D., Niemiro, G., Baker, F., Smith, K., Zúñiga, T., Mylabathula, P., Seckeler, 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 (I.F. 6.429)
10. #*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 (I.F. 4.37)
 11. #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
 12. 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 (I.F. 3.880)
 13. #*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 (I.F. 3.603)
 14. *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 (I.F. 3.519)
 15. #* 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 (I.F. 4.566)
 16. # 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 (I.F. 2.849)
 17. # 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* <https://digitalcommons.wku.edu/ijes/vol14/iss2/3>
 18. * **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 (I.F. 2.631)
 19. #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 (I.F. 2.982)
20. # 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 (I.F. 4.029)
 21. #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 <https://doi.org/10.3920/CEP200011> (I.F. 0.46)
 22. 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* <https://doi.org/10.1177/1559827619866157>
 23. * **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 Journal Adolescent Medicine and Health*. <https://doi.org/10.1515/ijamh-2018-0110> (I.F. 0.91)
 24. # 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 (I.F. 6.633)
 25. * 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. <https://doi.org/10.1016/j.physbeh.2018.07.010> (I.F. 2.826)
 26. # 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
<https://doi.org/10.1016/j.physbeh.2018.06.008> (I.F. 2.826)
 27. # 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
<https://doi.org/10.14814/phy2.13738> (I.F. 2.130)
 28. #* 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
<https://doi.org/10.1016/j.bbi.2018.04.007> (I.F.=6.633)

29. # 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>
30. * **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 <https://doi.org/10.14814/phy2.13070> (I.F. 2.130)
31. * **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 (I.F. 6.55)
32. 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 (I.F. 6.55)
33. #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
<https://doi.org/10.1177/1559827616629913> (I.F. 1.05)
34. * **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 (I.F. 6.55)
35. * **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 <https://doi.org/10.1016/j.cellimm.2015.02.007> (I.F. 4.078)
36. 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
<https://doi.org/10.1016/j.physbeh.2015.09.027> (I.F. 2.130)
37. * **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. <https://doi.org/10.1249/MSS.0b013e3182a5a0fb> (I.F. 4.029)
38. 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
<https://doi.org/10.1016/j.bbi.2013.05.003> (I.F. 6.633)
39. * **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 <https://doi.org/10.1007/s00421-013-2706-8> (I.F. 3.021)
40. * **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. <https://doi.org/10.1016/j.bbi.2012.09.006> (I.F. 6.633)
 41. 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 <https://doi.org/10.1016/j.maturitas.2013.06.010> (I.F. 3.810)
 42. 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 <https://doi.org/10.1016/j.cellimm.2013.07.009> (I.F. 4.078)
 43. 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 <https://doi.org/10.1016/j.arr.2012.03.003> (I.F. 10.340)
 44. * **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 <https://doi.org/10.1016/j.wem.2011.08.005> (I.F. 1.220)

Textbook Contributions

1. ***LaVoy, E.C.** and Nieman, D. ‘Exercise and communicable disease: General population and athletes’ Chapter in *Exercise Immunology 2nd 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

Manuscripts in Review

1. Lacourt, T.E., Tripathy, D., Swartz, M.C., **LaVoy, E.C.**, Heijnen, C.J. Distress and inflammation independently contribute to symptoms in breast cancer patients. Submitted to: *Comprehensive Psychoneuroendocrinology*
2. Yazdekhasi, S., **LaVoy, E.C.**, Arellano, C., Gorniak, S. Assessing Breast Acceleration While Using Sports Bras and Conventional Bras: A Comparative Analysis of Measurement Techniques

Submitted to: Medicine and Science in Sport and Exercise

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:

1. **LaVoy, E.C.** Exercise as an intervention to improve immunity. *Empowering Brilliance: Celebrating Women in Research*. University of Houston, February 24, 2024
2. **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
3. **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
4. **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
5. **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>

6. **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
7. **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
8. **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
9. **LaVoy, E.C.** “Exercise immunology” *MECH Brown bag*, University of Houston/MD Anderson, Houston TX, November 21, 2019
10. **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
11. **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

Professional Conferences/Peer Reviewed Abstracts

1. **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. *16th Symposium of the International Society of Exercise and Immunology*, 2024
2. 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. *16th Symposium of the International Society of Exercise and Immunology*, 2024
3. Hunt, R., Hodgman, C.F., Crane, J., **LaVoy, E.** The Impacts of Body Composition on the Metabolic Activity of Regulatory T Cells. *16th Symposium of the International Society of Exercise and Immunology*, 2024
4. Crane, J.C., Hodgman, C.F., Hunt, R., **LaVoy, E.C.** Cardiorespiratory Fitness and Mitochondrial Function Relate to Cytotoxic T cell Function *16th Symposium of the International Society of Exercise and Immunology*, 2024
5. **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 38-31 2024
6. 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 38-31 2024

7. 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 38-31 2024
8. 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
9. 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
10. 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
11. 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.
12. 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
13. 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
14. **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
15. 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.
16. **LaVoy, E.C.**, Crane, J., Gordon, M., Markofski, M., Simpson, R., Lee, C., Fares, S., Basen-Enquist, 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

17. 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". *15th Symposium of the International Society of Exercise and Immunology*, Tucson, AZ Oct 24-27, 2022
18. 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" *15th Symposium of the International Society of Exercise and Immunology*, Tucson, AZ Oct 24-27, 2022
19. 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. *15th Symposium of the International Society of Exercise and Immunology*, Tucson, AZ Oct 24-27, 2022
20. 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. *15th Symposium of the International Society of Exercise and Immunology*, Tucson, AZ Oct 24-27, 2022
21. 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. *15th Symposium of the International Society of Exercise and Immunology*, Tucson, AZ Oct 24-27, 2022
22. **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
23. 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
24. 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*
25. 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

26. 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 lightning poster presentation (oral)
27. **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
28. Batatinha, H., Diak, D.M., Niemiro, 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 Zenogeneic Mice. *Annual Meeting of the American College of Sports Medicine*, Online June 1-5, 2021
29. Markofski, M.M., Jennings, K., Hodgeman, 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
30. 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
31. **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**
32. 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*
33. **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
34. 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
35. 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

36. **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
37. 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
38. 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
39. 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
40. 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.
41. **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.
42. 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.
43. 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.
44. 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.
45. **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.
46. **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 **Oral presentation**
47. **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
48. **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 **Oral presentation**
 49. 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 β 2-adrenergic receptor signaling pathways: implications for immunotherapy. *2016 Annual Meeting of American College of Sports Medicine, Boston MA*
 50. 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*
 51. 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.
 52. **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. **Oral presentation**
 53. **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. **Oral presentation**
 54. **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.
 55. **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. **Oral Presentation**
 56. **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. *10th Symposium of the International Society of Exercise and Immunology*, Oxford, UK, July 2011.

57. **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.
58. **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 98th Annual meeting*, San Francisco, CA, May 2011.
59. **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.
60. **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. GEAR LaVoy (PI)
5/15/2024 – 11/15/2025 Budget: \$22,679
Exercise to Enhance NK Cell Therapy for Osteosarcoma
2. NIH/NIA: 1R56AG080816-01 Gorniak (PI)
09/20/2023-08/31/2025 Budget: \$471,287 (IDC: \$217,748)
Cortical complications of perimenopause and obstructive sleep apnea in underrepresented middle-aged women with type 2 diabetes
Role: Co-I
3. CLL Global Research Foundation (sub-award through MDA; Ferrajoli (PI))
7/14/2023 - 8/31/2024 Total subaward amount: \$48,828
A randomized phase II waitlist control trial of behavioral interventions in high-risk comorbid patients with chronic lymphocytic leukemia
Role: co-PI on subaward
4. UH CLASS Research Project Grant LaVoy (PI)
01/01/2024 – 12/31/2024 Budget: \$3962
Inflammation in patients with chronic lymphocytic leukemia: Effects of a physical activity intervention

Completed Research Support

1. NASA: NNJ14ZSA001N-MIXEDTOPICS Simpson (PI)
06/01/2016-12/31/2021 Budget: \$225,000 (IDC: \$58,722)
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

2. UH CLASS Research Progress Grant LaVoy (PI)
01/01/2021-12/31/2021 Budget: \$4,000
Exercise and the Tumor Microenvironment
3. UH Health Research Institute Gorniak (PI)
09/01/2019 – 08/30/2020) Budget: \$29,927
Functional Cortical Deficits and Cortical Hemodynamic Changes in Minority Older
Adults with Type II Diabetes
Role: Co-I
4. American College of Sports Medicine Research Foundation LaVoy (PI)
06/01/2019 – 06/30/2020 Budget: \$10,000
Identifying the Optimal Exercise Intervention and its Mechanism during Pancreatic
Cancer Treatment
5. NIH National Institute on Aging: R03AG052778 LaVoy (PI)
09/15/2017 – 04/30/2019 Budget: \$153,000 (IDC: \$50,229)
Resistance Exercise to Improve Vaccine Outcomes in Older Adults
6. UH CLASS Project Completion Grant LaVoy (PI)
01/01/2019 –08/31/2019 Budget: \$4,000
The effects of cytomegalovirus infection on the immune response to an exercise training
intervention
7. UH CLASS Research Project Grant LaVoy (PI)
01/01/2019 –08/31/2019 Budget: \$4,000
Identifying the optimal exercise intervention and its mechanisms during pancreatic cancer
treatment
8. UH CLASS Research Project Grant Park (PI)
01/01/2017 –08/31/2017 Budget: \$8,000
The inflammasome in obesity-induced vascular dysfunction: physical activity and the
immune system
Role: Co-I
9. UH CLASS Research Project Grant LaVoy (PI)
01/01/2016 –08/31/2016 Budget: \$12,000
Determining the relationship between physical fitness and disease in Chronic
Lymphocyte Leukemia patients
10. Texas Obesity Research Center Seed Funding LaVoy (PI)
01/01/2016 –08/31/2016 Budget: \$2,000
Adenovirus 36 Infection and Childhood Obesity: Immune Responses and Lifestyle
Interventions
11. Texas Chapter ACSM Student Research Development Award LaVoy (PI)
01/01/2011 –08/31/2011 Budget: \$2,000
12. Texas Chapter ACSM Student Research Development Award LaVoy (PI)
01/01/2010 –08/31/2010 Budget: \$2,000

Research Funding Applications in Review

1. 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
Budget: \$73,726
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
Budget: \$ 1,161,963
Role: Co-PI

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. AHA Transformational Project Award Caslin (PI) 7/1/2024 – 6/30/2027
Can exercise mitigate the immunometabolic changes with weight cycling?
Role: Co-I
3. 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
4. NIH-NCI Markofski (PI) 04/01/2023 – 03/31/2025
Interaction of the Immune System and Microbiome in Colorectal Cancer Survivors
Role: Co-I
5. 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
6. 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
7. 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
8. 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
9. 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
10. UH Grants to Enhance and Advance Research LaVoy (PI) 05/01/2022-11/01/2023
Immunometabolism of Exercise
 11. National Aeronautical and Space Administration LaVoy (PI) 01/01/2022-01/01/2023
Evaluating leukocyte adaptations to acute and chronic exercise
 12. 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
 13. 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
 14. 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
 15. 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
 16. 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
 17. 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
 18. UH Grants to Enhance and Advance Research LaVoy (PI) 05/01/2021-11/01/2022
Exercise to Improve Immuno-metabolism in Cancer
 19. Health and Environmental Sciences Institute Thrive
LaVoy/Schadler (co-PI) 01/01/ 2020-12/31/2021
Identifying causes and potential mitigation of loss of cardiorespiratory fitness related to
cancer
 20. American Pecan Council Johnston (PI) 09/01/2019-08/30/2020
Preventing the Freshman 15: Using Pecans as a Healthful Snack
Role: Co-I
 21. Center for Clinical and Translational Science Wardle (PI) 09/01/2019 – 08/30/2021
Stress, inflammation, and prescription opioid misuse

- Role: Co-I
22. NIH: NCI Markofski (PI) 07/01/2019-06/30/2021
 Role of resistance exercise in reducing risk for secondary diseases in cancer survivors
 Role: Co-I
23. NIH-NIDA Wardle (PI) 07/01/2019-06/30/2021
 Testing and Intervening in Inflammatory Mechanisms Linking Stress and Cocaine Use
 Role: Co-I
24. NASA LaVoy (PI) 01/01/2019 – 12/31/2024
 Cerebrospinal fluid inflammatory mediators and risk of adverse cognitive and behavioral
 outcomes during long-duration spaceflight
25. NIH-NIDA Wardle (PI) 07/01/2018-06/30/2023
 Rapid development of anti-inflammatory treatments for comorbid stimulant and alcohol
 use disorder
 Role: Co-I
26. William & Ella Owens Medical Research Foundation
 LaVoy (PI) 01/01/2018 – 12/31/2018
 Regulating responses to psychosocial stress using anti-inflammatories
27. John S. Dunn Foundation Collaborative Research Award Program
 Wardle (PI) 01/01/2017 – 12/31/2017
 Regulating responses to psychosocial stress using anti-inflammatories
 Role: Co-I
28. NIH-NCI LaVoy/Gilchrist (co-PI) 07/01/2017-06/30/ 2019
 The impact of radiotherapy on autonomic function and immune response in breast cancer
 patients
29. NIH-NIDDK LaVoy/Johnston (co-PI) 07/01/2017-06/30/2019
 Treatment of obesity among Adenovirus 36 (Ad36) seropositive Mexican American
 children

PROFESSIONAL LICENSURE AND CERTIFICATION

Operator Certification for Hologic X-ray Bone Densitometer in the State of Texas (December 2018-Present)

CPR with AED (2015-Present)

TEACHING AND STUDENT LEARNING

Courses Taught

University of Houston, Department of Health and Human Performance:

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)
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): ongoing
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):

Charlie Hodgman (chair): proposed November 2023
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

Nathan Fuentes (undergraduate student)

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 student)
1. Presented research poster at TACSM annual meeting, 2024
 2. Presented research poster at UH Undergraduate Research Day, 2024
- Kelley Doan (undergraduate student)
- Selected for Provost's Undergraduate Research Scholarship, Spring 2023
- Lynnsie McBride (undergraduate student)
- Selected for Provost's Undergraduate Research Scholarship, Spring 2023
- McArthur Bolden (undergraduate student)
- Departmental Award for Undergraduate Excellence in Exercise Science—Spring 2023
- Jaden Corpus (undergraduate student)
- Departmental Award for Undergraduate Excellence in Exercise Science—Spring 2022
- Brian Chung (undergraduate student):
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
- Justin Crane (PhD student 2021-present)
1. Poster Presentation Award, ISEI 2022 meeting
 2. Doctoral Student Research Development Award, 2022, Texas Chapter of the American College of Sports Medicine
- Rebekah Hunt (PhD student 2020-present)
1. Doctoral Student Research Development Award, 2022, Texas Chapter of the American College of Sports Medicine
 2. Departmental elevator speech contest award, 2023
- Charles Hodgman (PhD student 2019-present):
1. Departmental elevator speech contest award, 2023
 2. Cullen Student Success Fellowship, Graduate School, University of Houston, 2022
 3. Poster Presentation Award, ISEI 2022 meeting
 4. First place Research Presentation, 2020 annual meeting of the Texas Chapter of the American College of Sports Medicine
 5. Doctoral Student Research Development Grant, 2020, Texas Chapter of the American College of Sports Medicine
 6. 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 Cost Consortia Research Mentor Training (2018)

Workshop: Gulf Coast Consortia Entering Mentoring (2015)

Founder and Organizer (2019-2021):

Mechanisms of Exercise in Cancer and Health: Houston-based brown-bag series providing an opportunity to trainees of the U of H and MDACC for networking with local and national experts in exercise science and cancer biology.

Review Editor:

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

Ad hoc Manuscript Reviewer:

American Journal of Lifestyle Medicine

Antioxidants

BioResearch Open Access

BMC Infectious Diseases

Brain Behavior and Immunity

Complementary Therapies in Medicine

European Journal of Cancer Care

Exercise Immunology Review

Frontiers in Immunology

Frontiers in Medicine

Frontiers in Physiology

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

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 (2022-2024)
HEALTH Center for Addictions Research and Cancer Prevention Pilot Grant (2024)
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 a poster judge for undergraduate and graduate student presenters at 2017 and 2019-2022 TACSM annual meetings
Appointed to Research Review Committee (2024-present)
American Physiological Society
Member of the AJP-Regu early career reviewer board, 2020-present
International Society of Exercise Immunology
Psychoneuroimmunology Research Society

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)

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 (2022- 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

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

Provost's Travel Fund, 2016-2017 and 2017-2018.

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.

1st 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