HEATHER L. VELLERS, Ph.D., Clinical Exercise Physiologist

CURRICULUM VITAE
Assistant Professor, Exercise Physiology
Texas Tech University | Department of Kinesiology & Sport Management
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I. EDUCATION & POST-GRADUATE TRAINING

Institute	Degree	Years
National Institute of Environmental Health Sciences Research Triangle Park, North Carolina	Postdoctoral Research Fellowship	2016-2018
Texas A&M University, College Station, Texas	Ph.D., Exercise Physiology	2016
University of North Carolina at Charlotte, Charlotte, North Carolina	M.S., Clinical Exercise Physiology	2012
University of North Carolina at Charlotte, Charlotte, North Carolina	B.S., Exercise Science	2010

II. PROFESSIONAL EXPERIENCE & QUALIFICATIONS

Position	Employer	Years
Assistant Professor	Texas Tech University	2023-
Assistant Professor	University of Oklahoma	2021-2023
Assistant Professor	Texas Tech University	
Postdoctoral Research Fellow	National Institute of Environmental Health Sciences (NIEHS)	2018-2021
Huffines' Testing Specialist	Texas A&M University, Sidney & J.L. Huffines Institute for Sports Medicine & Human Performance College Station, TX	2016-2018 2015 2016
Graduate Teaching Assistant	Texas A&M University, Physical Education Activity Program,	2012-2016
Graduate Research Assistant	Texas A&M University; College of Education & Human Development, College Station, TX	2014-2016
Exercise Physiologist	Novant Heart and Wellness, Cardiopulmonary Rehabilitation, Charlotte, NC	2011-2012
Exercise Physiologist	Iredell Memorial Hospital, Cardiac Rehabilitation, Statesville, NC	2011-2012
Graduate Teaching Assistant	University of North Carolina at Charlotte, Public Health Sciences Department, Charlotte, NC	2011-2012

III. PROFESSIONAL SOCIETY MEMBERSHIPS, CERTIFICATIONS & OTHER RELEVANT TRAINING

Professional Society Memberships:

Harold Hamm Diabetes Center (HHDC), Associate Member	2021-current
Member of the American College of Sports Medicine (ACSM)	2013-current
Member of the Rio Grande American Physiological Society	2022-current
Member of the Central Sates American College of Sports Medicine (CSACSM)	2008-2017

Certifications:

Clinical Exercise Physiologist (CEP), ACSM	2012-current
Basic Life Support, American Red Cross	2010-current

Other Relevant Trainings:

Workshop attendance, "*How to Make a Class of 250 Feel Like a Class of 25*," TTU Teaching, Learning, and Professional Development Center and Teaching Academy.	Oct. 8, 2020
Conference attendance, "*The John M. Burns Conference on The Scholarship of Teaching and Learning*," TTU Teaching, Learning, & Professional Development Center.	Sept. 18, 2020
Workshop attendance, "*Transparency in Learning and Teaching (TILT) Workshop Series*," TTU Teaching, Learning, & Professional Development Center and Department of Kinesiology and Sport Management.	Spring 2020
Conference attendance, "*The John M. Burns Conference on The Scholarship of Teaching and Learning*," TTU Teaching, Learning, & Professional Development Center.	Oct. 21, 2019
Conference attendance, "*15th Annual Advancing Teaching and Learning Conference*," TTU Teaching, Learning, and Professional Development Center and Teaching Academy.	Feb. 21, 2019
Conference attendance, "*The John M. Burns Conference on The Scholarship of Teaching and Learning*," Teaching, Learning, & Professional Development Center and Teaching Academy.	Oct. 1, 2018
Workshop attendance, *NIH Grant Writing Workshop*. Grant Writers' Seminars and Workshops.	2018
Workshop attendance, *Library Preparation for Mitochondrial DNA Sequencing*, DNA Core Sequencing Laboratory, NIEHS	2016
Course attendance, *Courses in Biostatistics and Bioinformatics*, Biostatistics & Computational Biology Branch, NIEHS. Courses: Pathways Analysis; Introduction to the Command Line (and UNIX).	2016

IV. HONORS & AWARDS

Nominated, Hemphill-Wells New Professor Excellence in Teaching Award 2020
Texas Tech University

Recipient, Apple Polishing Award, Mortar Board Nov. 2020
Texas Tech University

Honorary Faculty Member, Phi Beta Kappa, TTU Chapter May 2020
Texas Tech University, Phi Beta Kappa society

Open Access Publication Award 2020-2021
Texas Tech University Office of Research and Innovation ($1,000).

Fellows Award for Research Excellence, NIH 2018-2019
National Institute of Health; Genetics Study Section

Doctoral Honor Graduate Award 2016
Department of Health and Kinesiology**,** Texas A&M University

Outstanding Graduate Teaching Assistant of the Year 2014-2015
Physical Education Activity Program, Texas A&M University

V. PROFESSIONAL SERVICE

University of Oklahoma, Department of Health and Exercise Science

Committee Member, Undergraduate Committee	2021-2023
Committee Member, Course Equivalency Project	2022
Committee Member, Research Oversight	2022-2023

Texas Tech University, Department of Kinesiology and Sport Management

Faculty Advisor, Pre-Occupational Therapy Club	2019-2021
Committee Member, Health and Fitness Assessment Screening Clinic	Spring 2020
Committee Member, Faculty Search Committee for Assistant Professor	Jan.-April 2019
Committee Member, Ph.D. Qualifying Exam Committee	2019-2020
Recruitment activity for Fall 2019 Kinesiology Speaker (Dr. Bradly Nindl)	Fall 2019
Recruitment activity for Spring 2020 Kinesiology Speaker (Dr. Matthew Brothers)	Spring 2020

National Institute of Environmental Health Sciences (NIEHS)

Vice President, National Trainee Assembly (NTA) Steering Committee	2017-2018
Co-Chair, 2018 Biomedical Career Symposium	2017-2018
Writer, Environment Factor Newsletter	2017-2018
Instructor and Committee Member, NIH Summer Internship Program	Summer 2017

Texas A&M University

Writing consultant for POWER, (Promoting Outstanding Writing for Excellence in Research) with Dr. Patricia Goodson	2014-2016
Affiliate, Huffines Sports Medicine Institute	2012-2016

Other Professional Service

Steering Committee Member, American Physiological Society (APS), New Regional APS Chapter development and implementation	Oct. 2020-current
Grant reviewer, University of North Carolina University System	May 2017

Manuscript reviewer, *Medicine & Science in Sport and Exercise* Journal	Aug. 2016-current
Exercise Education Special Interest Group Member, American College of Sports Medicine	July 2020-current
Research Review Committee Member, American College of Sports Medicine	Jan. 2021-current
Abstract Reviewer, Central States American College of Sports Medicine	Jan 2021

VI. TEACHING EXPERIENCE

Undergraduate courses (Face-to-Face Delivery)

University of Oklahoma
- Principles of Health & Fitness
- Principles of Endurance Training

Texas Tech University,
- Exercise Physiology
- Independent Studies

Texas A&M University,
- Aerobic Running
- Aerobic Walking
- Strength Training
- Basic Science of Health & Fitness

University of North Carolina at Charlotte
- Healthy Lifestyles

Undergraduate courses (Hybrid Delivery)

Texas Tech University,
- Exercise Testing and Prescription (Online lecture; Face-to-Face laboratory instruction). *This course was selected by TTU's Center for eLearning to use as an example of an excellent Hybrid Course Delivery model.*

Graduate courses (Face-to-Face Delivery)

Texas Tech University,
- Advanced Exercise Physiology 1: Endocrinology (Ph.D. level – developed and implemented)
- Advanced Exercise Physiology 2: Bioenergetics (Ph.D. level – developed and implemented)
- Development of Exercise Physiology Proposals (Ph.D. level – in development; will implement Spring 2021)
- Seminar in Exercise Physiology (Ph.D. level)

VII. MENTORING EXPERIENCE

Doctoral students

Texas Tech University
- Ms. Kosar Valaei, Doctoral Committee Chair, Project TBD. (August 2023 – current)
- *Mr. Nickolas Dobson, Doctoral Committee Chair, "*Characterization of DNA Methylation and Mitochondrial Genomes Across a Pane of Inbred Mice*," Department of Health and Exercise Science. (August 2022 – current). *I am continuing to mentor Mr. Dobson remotely

Mr. Mohammad Jodeiri-Farshbaf, Doctoral Advisory Committee Member, *Irisin suppresses acute stress-induced neurobehavioral and physiological impairments through cellular energy homeostasis in the hippocampus*, Department of Biological Sciences. (August 2019 – May 2021).

Mrs. Ahalee Farrow, Doctoral Advisory Committee Member. (January 2020 – May 2021).

Mr. Stephen Fischer, Doctoral Advisory Committee Member. - (January 2020 – May 2021).

Mr. Patrick Harty, Doctoral Advisory Committee Member. (August 2020 – May 2021).

Mr. Matthew Stratton, Doctoral Advisory Committee Member. (August 2020 – May 2021).

University of Oklahoma

Shabnam Samaei, Doctoral Committee Chair, Department of Health and Exercise Science (January 2023 – May 2023).

Dr. Akram Falahati, Doctoral Committee Chair, Department of Health and Exercise Science. (August 2022 – May 2023).

Master's students

Texas Tech University

Ms. Cayla Clark, Master's Thesis Committee Member, "*Effect of Fractionalized Exercise on Ambulatory Blood Pressure*," Kinesiology and Sports Management. (August 2019 – May 2021).

Mr. Hamed Khedmatgozar, Research Internship Mentor, Center for Biotechnology and Genomics. (August 2019 – May 2020).

University of Oklahoma

Mr. Gabriel R. Blume, Master's Thesis Committee Chair, *Genetic Contribution to HET3 Aging Mice Variation in Exercise Capacity Trainability*, Department of Health and Exercise Science. (August 2021 – December 2022)

Undergraduate students

Texas Tech University

Mr. Cooper Andrews, TTU Honor's College Research Scholar, *Mitochondrial Genome Characteristics in World-Class Elite Endurance Athletes: A Pilot Investigation*. (June 2020 – May 2021).

Mr. Flavio Calderon, Pi2 Scholar, TTU Honor's College Research Scholar, *Effect of Endurance Treadmill Running on Microbiome Characteristics in the UM-HET3 Mouse Aging Model*. (August 2020 – May 2021).

University of Oklahoma

Ms. Eva Chen, OU Honor Scholar, *Mitochondrial Genome Characterization in Hearts across 34 Inbred Mouse Strains*. (August 2022 – May 2023).

Texas A&M University

Mr. Nicholas R. Walker, *The Effect of 7,12-dimethylbenz[a]-anthracene (DMBA) on Physical Activity in Female Mice*. (August 2015 – February 2016).

Other Directed Student Learning

National Institute of Environmental Health Sciences (NIEHS)

Ms. Heather Li (high school student), Co-Mentor, *Characterization of Different Batches of the A2 Respiratory Syncytial Virus Strain on p53 Gene Expression and Cell Morphology*. (June 2017 – August 2018).

VIII. GRANTS & FUNDING

A. Grants Awarded **Time frame**

Principal Investigator – (100% effort) *Genetic Contribution to HET3 Aging Mice Variation in Exercise Capacity Trainability*. National Institute of Aging Nathan Shock Center New Investigator Pilot Award. Oklahoma Nathan Shock Center. $13,050. 2021-2022

Principal Investigator – (80% effort) *Role of Genetic Background on Age-Related Changes in Mitochondrial Genome Dynamics: Influence of Aerobic Exercise*. National Institute of Aging Nathan Shock Center New Investigator Pilot Award. San Antonio Nathan Shock Center. $30,000. 2020-2021

Co-Investigator – (10% effort; Dr. Joaquin Gonzales, PI) *Effect of Pulsatile Pressure and Long Sleep Duration on Cerebral Vascular Function*. American Heart Association. $197,451. 2019-2021

Principal Investigator – (100% effort) *Mitochondrial Sequencing Analysis in Response to Endurance Training in Mice*. NIEHS DNA Sequencing Core (internal funding). $5,000. 2016-2017

Principal Investigator – (100% effort) *Effect of V_2O_5 Exposure on Mitochondrial Sequencing in Mice*. NIEHS DNA Sequencing Core (internal funding). $5,000. 2016-2017

Principal Investigator – (100% effort) *Mitochondrial Sequencing in Lung and Heart Tissue of Inbred Mice*. NIEHS DNA Sequencing Core (internal funding). $5,000. 2016-2017

Principal Investigator – (80% effort) *The Effect of Chronic Overfeeding on Voluntary Wheel Running in Mice*. $5,000. ACSM Foundation Doctoral Student Research Grant. 2014-2015

B. Unfunded Grant Applications

Principal Investigator – (100% effort) *Mitochondrial DNA Signatures of Impaired Mitochondrial Function and Cardiovascular Disease Risk in Children Born Preterm*. Center of Biomedical Research Excellence, University of Oklahoma Center for Health Equity. $150,000 per year for 2-3 years. Oct. 2021

Principal Investigator – (100% effort) *Mitochondrial Genome Characteristics and Health Disparities among Native American Tribes* Center of Biomedical Research Excellence, University of Oklahoma Center for Health Equity. $150,000 per year for 2-3 years. Oct. 2021

Co-Investigator – (40%) *Effect of Chronic L-Citrulline Supplementation on Cardiometabolic and Skeletal Muscle Health in Post-Menopausal Women with Prediabetes*. National Institute of Aging, Research Collaborative Network. $40,000**.** Sept. 2019

Co-Investigator – (10%) *Exploring Cell-free Mitochondrial DNA as a Biomarker for Chronic Low Back Pain*. Texas Tech University Health Science Center Clinical Research Institute. $10,000. April 2019

Principal Investigator – (100% effort) *New Investigator Award*. American College of Sports Medicine. $10,000. Feb. 2019

Co-Investigator – (50% effort) *The Combination of Wearable Technology and the Socio-ecological Framework for Enhancing Physical Activity in Young and Older Adults with Autism*. National Institute of Aging. $1,519,956. Oct. 2018

Co-Investigator – (25% effort*) The Use of Wearable Sensor and the Socio-Ecological Framework for Improving Physical Activity, Social, and Physical Health in Adults with Autism*. $394,689. Oct. 2018

IX. PUBLICATIONS

Peer-Reviewed Publications

1) **Vellers, H. L.**, Cho, H. Y., Gladwell, W., Gerrish, K., Santos, J. H., Ofman, G., Miller-DeGraff L, Mahler T.B., Kleeberger S. R. **(2022)**. NRF2 Alters Mitochondrial Gene Expression in Neonate Mice Exposed to Hyperoxia. *Antioxidants*, 11(4), 760. *Impact Factor: 7.675 (2021).*

2) Shen, C.L., Wang, R., Ji, G., Elmassry, M.M., Zabet-Moghaddam, M., **Vellers, H.L.**, Hamood, A.N., Gong, X., Mirzaei, P., Sang, S. and Neugebauer, V., **(2022)**. Dietary supplementation of gingerols-and shogaols-enriched ginger root extract attenuate pain-associated behaviors while modulating gut microbiota and metabolites in rats with spinal nerve ligation. The Journal of Nutritional Biochemistry, 100, p.108904. *Impact Factor: 6.048 (2020)*

3) Harty, P. S., Friedl, K. E., Nindl, B. C., Harry, J. R., **Vellers, H. L.**, & Tinsley, G. M. Military Body Composition Standards and Physical Performance: Historical Perspectives and Future Directions (2021). *Journal of Strength and Conditioning Research*. **(2022)**. Online ahead of print. *Impact Factor: 3.775 (2021-2022).*

4) **Vellers, H.L.**, Verhein, K.C., Burkholder, A.B., Lee, L., Kim, Y., Lightfoot, J.T., Shi, M., Weinberg, C.R., Sarzynski, M.A., Bouchard, C., Kleeberger, S.R. Association between Mitochondrial DNA Sequence Variants and VO_2 max Trainability **(2020)**. Editor's Pick, *Medicine & Science in Sports & Exercise*, 52(11), 2303-2309. This manuscript was selected as a highlighted Active Voice commentary for the ACSM Sports Medicine Bulletin. *Impact Factor*: 4.478 (2019; 6th of 83 in Sports Sciences).

5) **Vellers, H.L.**, Massett, M.P., Avila, J.J., Kim, S.K., Marzec, M., Santos, J.H., Lightfoot, J.T., Kleeberger, S.R. Mitochondrial DNA Lesions and Copy Number are Strain Dependent in Endurance-Trained Mice **(2020)**. *Physiological Reports,* 8:e14605. *Impact Factor: 1.33 (2019).*

6) Letsinger, A. C., Menon, R., Iyer, A. R., **Vellers, H. L.**, Granados, J. Z., Jayaraman, A., & Lightfoot, J. T. **(2020)**. A High Fat/High Sugar Diet Alters the Gastrointestinal Metabolome in a Sex Dependent Manner. Metabolites, 10(10), 421. *Impact Factor: 3.03 (2019).*

7) Gonzales, J. U., Fischer, S. M., Maharaj, A., **Vellers, H.L.**, Anderson, T., Karnjanapiboonwong, A., Subbiah, S., Kellawan, J. M., & Figueroa, A. Response of exercise-onset vasodilator kinetics to L-citrulline supplementation during different phases of the menstrual cycle **(2020)**. *Physiological reports*, 8(15), e14536. *Impact Factor: 1.33 (2019).*

8) Snyder, R. J., Verhein, K. C., **Vellers, H. L.**, Burkholder, A. B., Garantziotis, S., & Kleeberger, S. R. Multi-walled carbon nanotubes upregulate mitochondrial gene expression and trigger mitochondrial

dysfunction in primary human bronchial epithelial cells **(2019)**. *Nanotoxicology*, 13(10), 1344-1361. *Impact Factor: 4.925 (2019).*

9) **Vellers, H.L**., Kleeberger, S.R. and Lightfoot, J.T. Inter-individual variation in adaptations to endurance and resistance exercise training: genetic approaches towards understanding a complex phenotype **(2018)**. *Mammalian Genome*: 1-15. *Impact Factor: 2.343 (2018).*

10) Verhein, K.C., **Vellers, H.L.**, and Kleeberger S.R. Inter-individual variation in health and disease associated with pulmonary infectious agents **(2018)**. *Mammalian Genome*: 1-10. *Impact Factor: 2.343 (2018).*

11) **Vellers, H.L**, Letsinger, A.C., Walker, N.R., Granados, J.Z., and Lightfoot, J.T. High Fat High Sugar Diet Reduces Voluntary Wheel Running in Mice Independent of Sex Hormone Involvement **(2017)**. *Frontiers in Physiology: Exercise Physiology section*. *Impact Factor: 4.134 (2017).*

12) Schmitt, E. E., **Vellers, H. L.**, Porter, W. W., & Lightfoot, J. T. Environmental Endocrine Disruptor Affects Voluntary Physical Activity in Mice **(2016)**. *Medicine & Science in Sports and Exercise*, 48(7), 1251-1258. *Impact Factor: 4.250 (2016).*

13) **Vellers, H. L**., Irwin, C., & Lightfoot, J.T. Heart rate response of professional musicians when playing music **(2015)**. Medical problems of performing artists, 30(2), 100. *Impact Factor: 0.321 (2015).*

14) Ferguson, D. P., Dangott, L. J., **Vellers, H. L.**, Schmitt, E. E., & Lightfoot, J. T. Differential protein expression in the nucleus accumbens of high and low active mice **(2015)**. Behavioural brain research, 291, 283-288. *Impact Factor: 3.002 (2015).*

15) Ferguson, D. P., Dangott, L. J., Schmitt, E. E., **Vellers, H. L.**, & Lightfoot, J. T. Differential skeletal muscle proteome of high-and low-active mice **(2014)**. Journal of Applied Physiology, 116(8), 1057-1067. *Impact Factor: 3.056 (2014).*

Invited Reviews and Book Chapters

1) **Vellers, H.L. and Schmitt, E.E. (co-first authors)**. Environmental Factors that May Affect the Genetic Regulation of Activity **(2019)**. Book chapter included in the book "Routledge Handbook of Systems Genetics of Sports and Exercise."

Manuscripts In-Review (*supervised student author)

1) Nick L. Dobson*, Steven R. Kleeberger, Adam B. Burkholder, Dianne M. Walters, and **Vellers, H.L**. Vanadium pentoxide exposure causes strain-dependent changes in mitochondrial DNA heteroplasmy, copy number, and lesions, but not nuclear DNA lesions. Submitted to the International Journal of Molecular Sciences on **08/24/2023**. *Impact Factor*: 5.6 (2022); *Other journal rankings*: 66/285 in the Biochemistry and Biology Category and 52/172 in the Chemistry/Multidisciplinary Category.

Poster Presentations (*supervised student author/presenter)

1) Akram Falahati*, Bernd Wolfarth FACSM, Rainer Rauramaa, MA Sarzynski FACSM, Claude Bouchard FACSM, and **HL Vellers**. *Mitochondrial Genome Characterization in Male World-Class Elite Endurance Athletes*. American College of Sports Medicine Conference 2023.

2) Nick Dobson*, Kevin Gerrish, Wes Gladwell, JM Marzec, SR Kleeberger, **HL Vellers**. *Mitochondrial DNA Heteroplasmy Types Across Inbred Mice*. American College of Sports Medicine Conference 2023.

3) GR Blume*, AB Salmon, Hanyu Liang, Elizabeth Fernandez, Victoria Villanueva, Nicolas Musi, PJ Hornsby, MP Massett, CD Black (ACSM Sponsoring Fellow), and **HL Vellers**. *HET3 Mice Have Changes in Exercise Capacity and Body Composition in Response to Aerobic Training*. American College of Sports Medicine Conference 2022.

4) GR Blume*, AB Salmon, Hanyu Liang, Elizabeth Fernandez, Victoria Villanueva, Nicolas Musi, PJ Hornsby, MP Massett, and **HL Vellers**. *HET3 Mice Have Changes in Exercise Capacity and Body Composition in Response to Aerobic Training*. Central States American College of Sports Medicine Conference 2022.

5) Flavio Calderon*, Cooper Andrews, AB Burkholder, JT Lightfoot, Mark Sarzynski, SR Kleeberger, Claude Bouchard and **HL Vellers**. *Characterization of Mitochondrial Genome Indels In Individuals Classified by High and Low Vo_2max Trainability*. American College of Sports Medicine Conference 2021.

6) Hamed Khedmatgozar*, MP Massett, Mohamed Fokar, JT Lightfoot, SR Kleeberger and **HL Vellers**. *Influence of Genetic Background on Heart Mitochondrial DNA Lesions and Copy Number in Inbred Mice*. American College of Sports Medicine Conference 2020.

7) Chwan-Li Shen, R Wang, Guangchen Ji, **HL Vellers**, Shengmin Sang, Volker Neugebauer. *Dietary Supplementation of Gingerols- and Shogaols-Enriched Ginger Root Extracts Attenuate Pain-Associated Behaviors in Animals with Spinal Nerve Ligation*. Nutrition 2020.

8) **HL Vellers**, KC Verhein, C Bouchard, JT Lightfoot, and SR Kleeberger. *Association between Mitochondrial DNA Sequence and Endurance Training Adaptations*. American College of Sports Medicine National Conference 2019.

9) **HL Vellers**, DM Walters, Jacqui Marzec, KC Verhein, Wes Gladwell and SR Kleeberger. *Mitochondrial Genome Contribution to Disease Susceptibility in Mice Following Vanadium Exposure*. Cell Symposia: Multifaceted Mitochondria 2018.

10) **HL Vellers** and Steven R. Kleeberger. *Association of Basal Lung Mitochondrial Function Assessments with Mitochondrial DNA Sequence, Heteroplasmy, and Copy Number in Mice*. American Thoracic Society Conference 2018. Oral presentation.

11) **HL Vellers,** JT Lightfoot, MP Massett and SR Kleeberger. *Association between Mitochondrial DNA Sequence and DNA Damage in Response to Endurance Training in Mice*. Southeast American College of Sports Medicine Conference 2018.

12) **HL Vellers**, Dianne M. Walters, Wesley Gladwell, Adam Burkholder, Kirsten Verhein, and Steven R. Kleeberger. *Genetic Contribution to Disease Susceptibility in Mice Following Exposure to Vanadium*. American Thoracic Society Conference 2017.

13) **HL Vellers**, JZ Granados, AC Letsinger, NR Walker, ME Spier, Isabel Lambertz, Robin Fuchs-Young, & JT Lightfoot. *The Effect of a High Fat/ High Sugar Diet on Physical Activity in Female Mice*. American College of Sports Medicine National Conference 2016.

14) JZ Granados, **HL Vellers**, AC Letsinger, NR Walker, ME Spier, Isabel Lambertz, Robin Fuchs-Young, & JT Lightfoot. *The Effect of a High Fat/ High Sugar Diet and Physical Activity Sex Hormone Concentrations in Female Mice*. American College of Sports Medicine National Conference 2016.

15) AC Letsinger, **HL Vellers**, JZ Granados, NR Walker, ME Spier, Isabel Lambertz, Robin Fuchs-Young, & JT Lightfoot. *The Effect of a High Fat/ High Sugar Diet and Physical Activity on Body Fat Percentage and Bone Mineral Density*. American College of Sports Medicine National Conference 2016.

16) **HL Vellers** and JT Lightfoot. *The Effect of Chronic Overfeeding on Regulation of Voluntary Physical Activity*. Submitted to the American College of Sports Medicine National Conference 2015.

17) EE Schmitt, **HL Vellers**, CD Irwin, and JT Lightfoot. *Endocrine-Disruption and Regulation of Physical Activity in Mice*. American College of Sports Medicine National Conference 2015.

18) **HL Vellers**, CD Irwin, and JT Lightfoot. *Physiological Stress Response of Performing Music Professionally*. American College of Sports Medicine National Conference 2014.

19) EE Schmitt, **HL Vellers**, CD Irwin, and JT Lightfoot. *Endocrine-Disruption and Regulation of Physical Activity in Mice*. American College of Sports Medicine National Conference 2014.

Invited Lectures, Keynotes, and Community Outreach Talks

Invited Speaker, *Do our Mothers Determine Aerobic Capacity Trainability? Potential Role of the Mitochondrial Genome on Aerobic Capacity Trainability*, Center for Pregnancy & Newborn Research Work in Progress Series, University of Oklahoma Health Science Center. (November 7, 2021).

Invited Speaker, Power of a Caring Attitude in Student Learning, 17th Annual Advancing Teaching & Learning Conference, Teaching, Learning, & Professional Development Center, Texas Tech University. (March 5th, 2021)

Invited Speaker, *Do our Mothers Determine Aerobic Capacity Trainability? Potential Role of the Mitochondrial Genome on Aerobic Capacity Trainability*, Center for Translational Research in Aging and Longevity and Department of Health and Kinesiology Fall 2020 Seminar, Texas A&M University. (November 6, 2020).

Invited Speaker*, *Association between Mitochondrial Genome Dynamics with Endurance Exercise Trainability in Mice and Humans*, Sam and Ann Barshop Institute Spring 2020 Seminar Series, San Antonio Nathan Shock Center, University of Texas Health Science Center at San Antonio. (May 6, 2020). ***Due to the COVID-19 pandemic, this in-person presentation was rescheduled as a webinar*.

Invited Speaker*, *Association between Mitochondrial DNA Sequence Variants and Aerobic Capacity Trainability in Mice and Humans*, Department of Toxicology, Texas A&M University. (April 6, 2020). ***Due to the COVID-19 pandemic, this in-person presentation was rescheduled as a webinar*.

Guest Lecturer, *Grant Writing in the Basic Sciences*, Course: Grants and Proposals for the Academy and Industry (ENGL 5393), Texas Tech University. (November 4, 2019).

Invited Speaker, *Mitochondria, Aging, and Exercise*, Seniors are Special Program, University Medical Center Lubbock. (September 11, 2019).

Presenter, *A Method to Enhance Student Accountability & Active Engagement during Class Discussions*, Annual Departmental Teaching Workshop 2019, Kinesiology & Sport Management Department, Texas Tech University. (August 23, 2019).

Presenter, *Genetics as a Predictor of how we Respond to Aerobic Exercise Training*, Center of Excellence for Integrative Health Annual Member Meeting, Texas Tech Health Science Center, School of Pathology. (May 16, 2019).

Presenter, *Mitochondrial DNA Sequence Variant Associations with Endurance Exercise Trainability*, Obesity Research Institute Annual Meeting 2019, Texas Tech University. (May 8, 2019).

Invited Speaker, *Association between Mitochondrial DNA Sequence, Heteroplasmy, and Indels with Response to Aerobic Exercise Training*, Spring 2019 Obesity Research Seminar Series, Department of Nutritional Sciences, Texas Tech University. (February 4, 2019).

Keynote Speaker for Honor Student Graduation Ceremony, University of North Carolina at Charlotte, Kinesiology Department. (April 2, 2018)

ACSM Student Colloquium Speaker, *Experiences as a Researcher and as an Exercise Physiologist*. American College of Sports Medicine Conference 2016.

ACSM Student Colloquium Speaker, *Importance of Certifications – and Career Options – for Exercise Physiologists*. American College of Sports Medicine Conference 2014.

ACSM Student Colloquium Speaker, *My Experiences as an Exercise Physiologist in Cardiac and Pulmonary Rehabilitation*. American College of Sports Medicine Conference 2013.

ACSM Student Colloquium Speaker, ACSM Conference 2013. *Description*: Discussed my prior experience working as an Exercise Physiologist in Cardio-pulmonary rehabilitation, and careers options for Exercise Physiologists.

Media Contributions

Active Voice Commentary, American College of Sports Medicine, Sports Medicine Bulletin. Title: "*Do our Mothers Determine our Aerobic Capacity Trainability?*"

Women's Health Magazine (Fitness), Contributed my research and expertise to a story on mitochondria and short-bouts of high-intensity exercise with energy levels and mood changes. Title: "*Wake-Up Call*." April 2020.

Huffines Institute Audio Podcast, Audio link: click here.

X. STATEMENT OF ACCURACY AND AUTHENTICITY

This statement of accuracy and authenticity certifies that all the information in this CV is accurate and represents the education, experiences, and accomplishment of Heather L. Vellers.