

Curriculum Vitae

Jennifer M. Yentes, Ph.D.

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Education:

Doctorate of Philosophy in Biomechanics/Motor Control 2013
University of Nebraska Medical Center, Omaha, Nebraska
Research Focus: Gait mechanics of pathological populations, cognition and gait control, human movement variability, coupling of biological rhythms
Dissertation: Functional outcomes associated with gait in patients with chronic obstructive pulmonary disease

Master of Science in Kinesiology 2006
California State University, Fullerton, California
Master's Thesis: Gait and secondary task performance in subjects with and without diabetic neuropathy

Bachelor of Arts in Kinesiology, emphasis in Biomechanics 2000
Minor: Nutrition
University of Northern Colorado, Greeley, Colorado

Professional Experience:

August 2014 – Present	Assistant Professor, School of Health, Physical Education and Recreation University of Nebraska, Omaha, Nebraska
August 2013 – Present	Director, Balance and Strength Laboratory, Biomechanics Research Building, University of Nebraska, Omaha, Nebraska
January 2013 – August 2014	Instructor, School of Health, Physical Education and Recreation University of Nebraska, Omaha, Nebraska
June 2010 – December 2012	Laboratory manager, Nebraska Biomechanics Core Facility University of Nebraska, Omaha, Nebraska
July 2008 – December 2012	Graduate research assistant, Nebraska Biomechanics Core Facility, University of Nebraska, Omaha, Nebraska
July 2008 – Present	Without compensation appointment (WOC), Research staff Department of Veterans' Affairs, Omaha, Nebraska
October 2005 – July 2008	Health science specialist (PI: Meika Fang, MD) Department of Veterans' Affairs, Los Angeles, California
September 2005 – January 2006	Research independent study, "Falls Clinic" (PI: Karen Perell, PhD) California State University, Fullerton, California
February 2005 – October 2005	Without compensation appointment (WOC), Research intern Department of Veterans' Affairs, Los Angeles, California
September 2004 – May 2005	Research assistant, "FallProof™" (PI: Debra Rose, PhD) California State University, Fullerton, California

Teaching Experience:

2013 (1 sem.)	Physiology & Anatomy I (130+ students)	University of Nebraska, Omaha
2013-2014 (3 sem.)	Biomechanics (40+ students)	University of Nebraska, Omaha
2013-2014 (3 sem.)	Laboratory Methods (18 students)	University of Nebraska, Omaha
2013-2014 (3 sem.)	Physiology & Anatomy II (50-90 students)	University of Nebraska, Omaha
2012 (1 sem.)	Exercise Physiology (40+ students)	University of Nebraska, Omaha
2011 (1 sem.)	Nonlinear Analysis (11 students)	University of Nebraska, Omaha
2010 (1 sem.)	Measurement and Evaluation (10 students)	University of Nebraska, Omaha
2007-2008 (3 sem.)	Measurement and Statistics in Kinesiology	California State University, Fullerton
2004 (1 sem.)	Physical Conditioning	California State University, Fullerton

Funding:**Current Projects (Role of Principal Investigator):**

Yentes (PI) 9/01/14 – 5/31/15 \$16,780
NASA EPSCoR Mini Grant
A novel and simple tool to measure health

Yentes (PI) 06/01/14-5/31/15 \$13,223
University of Nebraska at Omaha, Peter Kiewit Institute
Monitoring dermal blood flow through video magnification

Yentes (PI) 10/30/14 – 7/31/19 \$949,070
NIH/NIGMS 1P20GM109090, Sub #5348
Breathing and walking coupling variability in COPD

Current Projects (Role of Supporting Personnel)

Rennard (PI) 6/01/09-5/31/15 \$20,000
University of Nebraska Medical Center, Center for Clinical and Translational Research
Systemic inflammation and gait in older adults with COPD
Role: Co-Investigator

Coleman (PI) 11/1/14 – 10/31/15 \$50,000
COBRE Pilot Funding
Understanding movement variability among patients on antiretroviral treatment for HIV
Role: Co-Investigator

Completed Projects (Role of Principal Investigator):

Yentes (PI) 1/01/09 – 3/31/09 \$1,500
NASA Nebraska Space Grant and EPSCoR Fellowship
COPD gait: A preliminary investigation

Yentes (PI) 1/01/10 – 3/31/10 \$5,000
NASA Nebraska Space Grant and EPSCoR Fellowship
The effects of dual motor tasking on gait variability

Yentes (PI) 9/1/10 – 3/31/11 \$10,000
NASA Nebraska Space Grant and EPSCoR Fellowship
Gait in chronic obstructive pulmonary disease

Yentes (PI) 6/01/10 – 5/31/12 \$2,000
American Society of Biomechanics
Systemic inflammation and gait in older adults with chronic obstructive pulmonary disease

Yentes (PI) 9/01/11 – 5/31/12 \$7,500
NASA Nebraska Space Grant and EPSCoR Fellowship
Restoration of physical activity after spaceflight: What we can learn from COPD

Yentes (PI) 9/01/11 – 5/31/13 \$3,000
American Alliance for Health, Physical Education, Recreation and Dance
Mechanical abnormalities in chronic obstructive pulmonary disease

Yentes (PI) 9/01/12 – 5/31/13 \$3,500
NASA Nebraska Space Grant and EPSCoR Fellowship
Understanding walking and breathing coupling when abnormal breathing patterns are present

Yentes (PI) 7/01/11 – 6/30/13 \$22,500 + tuition remission
University of Nebraska Medical Center, Bucky and McDonald Fellowship
Mechanisms of peripheral muscular abnormalities in chronic obstructive pulmonary disease

Yentes (PI) 9/01/13 – 5/31/14 \$20,000
NASA EPSCoR Mini Grant
Entropy in large data sets

Pending Projects (Role of Supporting Personnel):

Jawad-Wessel (PI) 6/1/14 – 5/30/15 \$35,000
FIRE Pilot Funding
Movement variability and pelvic pain in pregnant women: The feasibility of continuous monitoring
Role: Co-Investigator

Rosen (PI) 6/1/14 – 5/30/15 \$35,000
FIRE Pilot Funding
Assessment of movement quality and cortical activation during dual-task perturbations in those with chronic ankle instability
Role: Co-Investigator

Patents:

1. “Variability and coupling of biorhythms to solve problems in COPD” – New Invention Notification No. 14023 filed on 11/13/13
2. “Monitoring system for COPD” – Provisional Patent Docket No. 14023P1, Serial No. 62/042,465 filed on 8/27/14

Publications:

Peer-Reviewed Papers

1. Yentes JM & Perell KL. Diabetic peripheral neuropathy and exercise. *Clinical Kinesiology*, 60(3): 25-32, 2006.
2. Yentes JM, Perell KL, Barr M, Fang MA. Cognitive processing during gait and balance: A Review. *Clinical Kinesiology*, 61(3): 21-24, 2007.
3. Yentes JM, Elrod MP, Perell KL. Predicting fall risk with plantar pressure equipment in individual with diabetes. *Clinical Kinesiology*, 61(1): 1-6, 2007.
4. Aragaki DR, Nasmyth MC, Schultz SC, Nguyen GM, Yentes JM, Kao K, Perell KL, Fang MA. Immediate effects of contralateral and ipsilateral cane use on normal adult gait: A pilot study. *PM&R*, 1(3): 208-213, 2009.
5. Yentes JM, Sayles H, Meza J, Mannino DM, Rennard SI, Stergiou N. Walking abnormalities are associated with COPD: An investigation of the NHANES III dataset. *Respiratory Medicine*, 105: 80-87, 2011.
6. Vallabhajosula S, Yentes JM, Stergiou N. Frontal joint dynamics when initiating stair ascent from a stand versus a walk, *Journal of Biomechanics*, 45: 609-613, 2012.
7. Fang MA, Heiney C, Yentes JM, Harada ND, Masih S, Perell-Gerson KL. Clinical and spatiotemporal gait effects of canes in hip osteoarthritis, *PM&R*, 4: 30-36, 2012.
8. Vallabhajosula S, Yentes JM, Momcilovic M, Blanke D, Stergiou N. Do lower-extremity joint dynamics change when stair negotiation is initiated with self-selected comfortable gait speed? *Gait & Posture*, 35(2): 203-208, 2012.
9. Wurdeman SR, Yentes JM, Huben NB, Stergiou N. An unstable rocker bottom shoe alters external work. *Footwear Science*, 4(2): 153-158, 2012.
10. Yentes JM, Huisinga JM, Myers SA, Pipinos I, Johanning J, Stergiou N. Pharmacological treatment of intermittent claudication does not have a significant effect on gait impairments during claudication pain. *Journal of Applied Biomechanics*, 28(2): 184-191, 2012.
11. Huisinga JM, Yentes JM, Filipi ML, Stergiou N. Postural control strategy during standing is altered in patients with multiple sclerosis. *Neuroscience Letters*, 524(2):124-128, 2012.
12. Yentes JM, Hunt N, Schmid KK, Kaipust JP, McGrath D, Stergiou N. The appropriate use of approximate entropy and sample entropy with short data sets. *Annals of Biomedical Engineering*, 41(2):349-365, 2013.
13. Harada N, Fong S, Heiney C, Yentes JM, Perell-Gerson KL, Fang MA. Evaluation of two cane instruments in older adults with knee osteoarthritis. *Journal of Rehabilitation Research and Development*, 51(2):275-284, 2014.
14. Yentes JM, Rennard SI, Blanke D, Stergiou N. The effect of a short duration, high intensity exercise intervention on gait biomechanics in patients with COPD: Findings from a pilot study. *Chronic Obstructive Pulmonary Diseases: Journal of The COPD Foundation*, 1(1):133-147, 2014.
15. Yentes JM, Kurz MJ, Stergiou N. Lower extremity injury in female basketball players is related to a large difference in peak eversion torque between barefoot and shod conditions. *Journal of Sport and Health Sciences*, 3:227-232, 2014.

16. Fang M, Heiney C, Yentes JM, Harada ND, Masih S, Perell-Gerson KL. Effects of contralateral versus ipsilateral cane use on gait in people with knee osteoarthritis. (Accepted for publication in *PM&R*).
17. Yentes JM, Schmid KK, Blanke D, Romberger DJ, Rennard SI, Stergiou N. Gait mechanics in patients with chronic obstructive pulmonary disease. (Under review with *Respiratory Research*).
18. Applequist B, Korgan WE, Wurdeman SR, Yentes JM, Myers SA, Stergiou N. Reduced vertical displacement while walking does not coincide with reduced energy expenditure. (Under review with *Gait & Posture*).

Media and Newsletter Articles

1. Myers SA, Yentes JM. Clinical application of nonlinear dynamics: Improving patient outcomes using variability. *Society for Chaos Theory in Psychology & Life Sciences Newsletter*, 21(1):5-6, 2013.

Papers in Progress

1. Yentes JM, Rennard SI, Blanke D, Stergiou N. Patients with COPD walk with a wider and more periodic step width pattern as compared to healthy controls. (In progress for *Annals of Biomedical Engineering*, 90% complete).
2. Yentes JM, Rennard SI, Blanke D, Stergiou N. The effect of voluntary and involuntary breathing rhythms on locomotor respiratory coupling. (In progress for *Journal of Applied Physiology*, 90% complete).
3. Huben NB, Yentes JM, Myers SA, Lyden E, Stergiou N, Pipinos II, Johanning JM. Functional loss in peripheral arterial disease is not improved post intervention based on spatio-temporal gait parameters. (In progress for *Journal of Surgical Research*, 90% complete).
4. Diffendaffer AZ, Yentes JM, Wurdeman SR, Myers SA. Redistribution of joint work within the stance phase of gait. (In progress for *Journal of Biomechanics*, 50% complete).
5. Yentes JM, Stergiou N. A novel method for evaluating consecutive steps during stair ascent. (In progress for *Journal of Applied Biomechanics*, 55% complete).
6. Vallabhajosula S, Yentes JM, Stergiou N. Inter-limb joint dynamics are symmetric during stair ascent in healthy young adults. (In progress).
7. Yentes JM, Huisinga JM, Filipi ML, Stergiou N. Comprehensive evaluation of postural control in multiple sclerosis requires multiple measures. (In progress).

Book Chapters in Progress

1. Yentes JM, Stergiou N. Entropy methods of analysis. In "Nonlinear Analysis of Human Movement".

Abstracts in Referred Journals

1. Firooz N, Taylor CE, Nouvong A, Masih S, Yentes JM, Perell KL, Fang MA. Effects of footwear on medial knee osteoarthritis. *Arthritis and Rheumatology*, 54(suppl): S670, 2006.
2. Perell-Gerson KL, Heiney C, Harada ND, Yentes JM, Masih S, Fang MA. Cane use in hip osteoarthritis. *Arthritis and Rheumatology*, 62(suppl): S710, 2010.

3. Huisinga JM, Yentes J, Kaipust JP, Filipi M, Stergiou N. Patients with MS exhibit increased predictability during gait and posture tasks. *Journal of Sport & Exercise Psychology*, 33(suppl):S24, 2011.
4. Yentes JM, Rennard SI, Stergiou N. COPD affects variability in spatiotemporal gait patterns. *Research Quarterly for Exercise and Sport*, 84(SI1):A98, 2013.

Tutorials

1. Stergiou N, Yentes JM. Nonlinear analysis: Theory and applications. Presented at the 17th Annual Gait and Clinical Movement Analysis Society Meeting. Grand Rapids, Michigan, May 2012.
2. Stergiou N, Yentes JM. Nonlinear analysis: Theory and applications. Presented at the 2013 American Society of Biomechanics Meeting. Omaha, Nebraska, September 2013.

Invited Presentations

1. Yentes JM. *Innovative research fuels future advances in health care*. Presented at the 2011 Nebraska Summit on Entrepreneurship. Omaha, Nebraska, February 2011.
2. Yentes JM. *Functional outcomes associated with gait in patients with COPD*. Presented at the Pulmonary, Critical Care, Sleep & Allergy Research Conference. Omaha, Nebraska, October 2013.
3. Yentes JM. *Biomechanics and clinical practice: How analysis of human movement informs rehabilitation*. Presented at the Annual Nebraska Physiological Society Meeting. Omaha, Nebraska, October 2014.
4. Yentes, JM. *Detecting problems before symptoms*. Presented at the UNeMed Annual Technology Demo Day. Omaha, Nebraska, October 2014.
5. Yentes JM. *Functional outcomes associated with gait in patients with COPD*. To be presented at the Geriatric Research Seminar Series. Omaha, Nebraska, February 2015.
6. Yentes JM. *TBD*. To be presented at the Pulmonary, Critical Care, Sleep & Allergy Research Conference. Omaha, Nebraska, April 2015.

Abstracts Under Review

Peer-Reviewed Oral Presentations

1. Koutakis P, Yentes JM, Myers SA, Kaipust JP, Johanning JM, Pipinos I, Stergiou N. (Presented by Yentes, JM). Lower extremity kinetics are altered in patients with unilateral peripheral arterial disease. Presented at the 14th Annual Gait and Clinical Movement Analysis Society Meeting. Denver, Colorado, March 2009.
2. Huben NB, Yentes JM, Myers SA, Pipinos II, Stergiou N, Johanning JM. Spatial and temporal gait parameters are not improved after revascularization in symptomatic peripheral arterial disease patients. Presented at the 34th Annual Meeting of the Midwestern Vascular Surgical Society. Indianapolis, Indiana, September 2010.
3. Yentes JM, Rennard SI, Stergiou N. Chronic obstructive pulmonary disease does affect gait. Presented at the 2011 Midwest Student Biomedical Research Forum. Omaha, Nebraska, February 2011.

4. Huben NB, Yentes JM, Myers SA, Pipinos II, Stergiou N, Johanning JM. The effect of revascularization on spatio-temporal gait parameters in patients with symptomatic peripheral arterial disease. Presented at the *2011 National Conference on Undergraduate Research*. Ithaca, New York, April 2011.
5. Huben NB, Yentes JM, Koutakis P, Myers SA, Johanning JM, Pipinos II, Stergiou N. Joint kinetics are independent of level of disease in peripheral arterial disease patients. Presented at the *2011 National Conference on Undergraduate Research*. Ithaca, New York, April 2011.
6. Yentes JM, Rennard SI, Stergiou N. Chronic obstructive pulmonary disease does affect gait. (Mini Symposium Presentation) Presented at the *American Thoracic Society 2011 International Conference*. Denver, Colorado, May 2011.
7. Huisinga JM, Yentes JM, Kaipust JP, Filipi ML, Stergiou N. Patients with MS exhibit increased predictability during gait and posture tasks. (Symposium Presentation) Presented at the *2011 North American Society for the Psychology of Sport and Physical Activity Annual Meeting*. Burlington, Vermont, June 2011.
8. Yentes JM, Huisinga JM, Filipi ML, Stergiou N. Clinical and biomechanical measures of balance in multiple sclerosis. Presented at the *17th Annual Gait and Clinical Movement Analysis Society Meeting*. Grand Rapids, Michigan, May 2012.
9. Korgan W, Wurdeman SR, Yentes JM, Stergiou N. Reduced vertical displacement of body's center of mass coincides with increased metabolic energy expenditure. Presented at the *17th Annual Gait and Clinical Movement Analysis Society Meeting*. Grand Rapids, Michigan, May 2012.
10. Hasenkamp R, Yentes JM, Wurdeman SR, Stergiou N, Johanning JM, Pipinos II, Myers SA. Plantarflexor strength is related with plantarflexor power during claudication in patients with peripheral arterial disease. Presented at the *17th Annual Gait and Clinical Movement Analysis Society Meeting*. Grand Rapids, Michigan, May 2012.
11. Yentes JM, Wurdeman SR, Pipinos II, Johanning JM, McGrath D, Myers SA. Positive ankle work is affected by peripheral arterial disease. Presented at the *2012 American Society of Biomechanics Meeting*. Gainesville, Florida, August 2012.
12. Diffendaffer A, Yentes JM, Wurdeman SR, Lieb D, Myers SA. Redistribution of joint work within the stance phase of gait. Presented at the *2013 American Society of Biomechanics Meeting*. Omaha, Nebraska, September 2013.

Peer-Reviewed Poster Presentations

1. Aragaki DR, Nasmyth M, Nguyen G, Schultz S, Yentes J, Fang, M. Effect of contralateral and ipsilateral cane use on peak vertical force in healthy, young subjects. Proceedings of *the Annual Assembly of the American Academy of Physical Medicine and Rehabilitation*. Boston, Massachusetts. 2007.
2. Yentes JM, Fang MA, Perell KL, Grant CC. Cane use in obese patients with knee osteoarthritis. Proceedings of *13th Annual Gait and Clinical Movement Analysis Society Meeting*. Richmond, Virginia. April 2008.
3. Waraich SA, Yentes JM, Perell KL, Masih S, Harada ND, Heiney CC, Fang MA. The effects of single point canes on osteoarthritis of the knee. Proceedings of *the 2008 Annual Scientific Meeting for the American College of Rheumatology*. San Francisco, California. August 2008.

4. Yentes JM, Koutakis P, Myers SA, Kaipust JP, Pipinos I, Johanning JM, Stergiou N. Unilateral intermittent claudication affects joint kinematics during gait. Proceedings of *14th Annual Gait and Clinical Movement Analysis Society Meeting*. Denver, Colorado. March 2009.
5. Yentes JM, Decker LM, Myers SA, Rodríguez-Aranda CE, Potter JF, Stergiou N. Aging and dual task alter amount and structure of lower limb kinematic variability during gait. Proceedings of *The Society of Neuroscience's 39th Annual Meeting*. Chicago, Illinois. October 2009.
6. Lee SM, Heiney C, Perell KL, Masih S, Harada ND, Yentes JM, Fang MA. Effect of cane use on lower limb biomechanics and pain in knee osteoarthritis. Proceedings of *the 2009 Annual Scientific Meeting for the American College of Rheumatology*. Philadelphia, Pennsylvania. August 2009. Awarded Notable Poster Designation.
7. Yentes JM, Huisinga JM, Myers SA, Pipinos II, Johanning JM, Stergiou N. Pharmacological treatment for intermittent claudication does not significantly affect gait impairments during claudication pain. Proceedings of *15th Annual Gait and Clinical Movement Analysis Society Meeting*. Miami, Florida. May 2010.
8. Huben NB, Yentes JM, Koutakis P, Myers SA, Johanning JM, Pipinos II, Stergiou N. Gait impairment in PAD patients is independent of level of disease. Proceedings of *15th Annual Gait and Clinical Movement Analysis Society Meeting*. Miami, Florida. May 2010.
9. Perell-Gerson KL, Heiney C, Harada ND, Yentes JM, Masih S, Fang MA. Cane use in hip osteoarthritis. Proceedings of the *2010 ACR/ARHP Annual Scientific Meeting*. Atlanta, Georgia. November 2010.
10. Yentes JM, Decker LM, Fosnaugh EM, Teten AW, Potter JF, Stergiou N. Gait affects clustering and switching on semantic fluency. Proceedings of *The Society for Neuroscience's 40th annual meeting*. San Diego, California. November 2010.
11. Yentes JM, Wurdeman SR, Huisinga JM, Stergiou N. Mechanical efficiency during gait is altered by multiple sclerosis. Proceedings of *16th Annual Gait and Clinical Movement Analysis Meeting*. Bethesda, Maryland. April 2011.
12. Vallabhajosula S, Yentes JM, Tan CW, Siu KC, Stergiou N. Do lower extremity joint dynamics change when stair negotiation is initiated with a self-selected gait speed? Proceedings of *16th Annual Gait and Clinical Movement Analysis Meeting*. Bethesda, Maryland. April 2011.
13. Yentes JM, Rennard SI, Stergiou N. Gait in patients with COPD is mainly affected in proximal musculature. Proceedings of the *American Society of Biomechanics 2011 Meeting*. Long Beach, California, August 2011.
14. Yentes JM, Vallabhajosula S, Stergiou N. Adaptations in joint kinetics over consecutive steps in stair negotiation. Proceedings of the *American Society of Biomechanics 2011 Meeting*. Long Beach, California, August 2011.
15. Vallabhajosula S, Yentes JM, Tan CW, Siu KC, Stergiou N. Frontal joint dynamics while initiating with and without gait speed. Proceedings of the *American Society of Biomechanics 2011 Meeting*. Long Beach, California, August 2011.
16. Vallabhajosula S, Yentes JM, Tan CW, Siu KC, Stergiou N. Impact of starting position on variability of neuromuscular control during stair negotiation. Proceedings of the *Society of Neuroscience's 40th Annual Meeting*. Washington, D.C., November 2011.

17. Rand T, Yentes JM, Stergiou N, Myers SA. Fear of falling is related to walking impairment in peripheral arterial disease. *Proceedings of the 17th Annual Gait and Clinical Movement Analysis Society Meeting*. Grand Rapids, Michigan, May 2012.
18. Yentes JM, Rennard SI, Stergiou N. Walking abnormalities in patients with COPD. *Proceedings of the 2012 American Society of Biomechanics Meeting*. Gainesville, Florida, August 2012.
19. Wurdeman SR, Yentes JM, Myers SA, Jacobsen AL, Stergiou N. Both limbs in unilateral transtibial amputees display increased risk for tripping. *Proceedings of the 2012 American Society of Biomechanics Meeting*. Gainesville, Florida, August 2012.
20. Vallabhajosula S, Tan CW, Davidson AJ, Mukherjee M, Siu KC, Yentes JM, Myers SA. Kinematics and kinetics during stair ascent while dual-tasking. *Proceedings of the 2012 American Society of Biomechanics Meeting*. Gainesville, Florida, August 2012.
21. McGrath D, Wurdeman SR, Yentes JM, Hunt N, Myers SA, Stergiou N. Energy cost of maintaining balance during a perturbed gait task is related to gait variability. *Proceedings of the 2012 American Society of Biomechanics Meeting*. Gainesville, Florida, August 2012.
22. Korgan W, Wurdeman SR, Yentes JM, Myers SA, Stergiou N. Kinematics confirm reduced displacement of the body's center of mass can increase energy expenditure. *Proceedings of the 2012 American Society of Biomechanics Meeting*. Gainesville, Florida, August 2012.
23. Davidson AJ, Vallabhajosula S, Tan CW, Mukherjee M, Siu KC, Yentes JM, Myers SA, Stergiou N. Cognitive dual-tasking has greater impact than physical dual-tasking on lower joint kinetics during stair ascension. *Proceedings of the 2012 American Society of Biomechanics Meeting*. Gainesville, Florida, August 2012.
24. Yentes JM, Rennard SI, Stergiou N. RC Grant Findings: COPD affects variability in spatiotemporal gait patterns. *Proceedings of the 2013 Research Consortium Conference of the AAHPERD National Convention and Exposition*. Charlotte, North Carolina, April 2013.
25. Yentes JM, Hunt N, Schmid KK, Kaipust JP, McGrath D, Stergiou N. Sample entropy outperforms approximate entropy with small data sets. *Proceedings of the 2013 American Society of Biomechanics Meeting*. Omaha, Nebraska, September 2013.
26. Yentes JM, Rennard SI, Blanke D, Stergiou N. Patients with COPD walk with a more periodic step width pattern as compared to healthy controls. *Proceedings of the American Thoracic Society 2014 International Conference*. San Diego, California, May 2014.
27. Yentes JM, Rennard SI, Blanke D, Stergiou N. The effect of exercise intervention on gait in patients with COPD: Findings from a pilot study. *Proceedings of the American Thoracic Society 2014 International Conference*. San Diego, California, May 2014.
28. Yentes JM, Rennard SI, Blanke D, Stergiou N. Patients with COPD walk with a more periodic step width pattern as compared to healthy controls. *Proceedings of the 7th World Congress of Biomechanics Meeting*. Boston, Massachusetts, July 2014.
29. Pickhinke J, Pisciotta E, Yentes JM. Sample entropy outperforms approximate entropy for large gait data sets. *Proceedings of the 7th World Congress of Biomechanics Meeting*. Boston, Massachusetts, July 2014.
30. Pisciotta EJ, Wurdeman SR, Yentes JM, Pipinos II, Johanning JM, Myers SA. A comparison of gait parameters between patients with peripheral arterial disease and patients with chronic obstructive

pulmonary disease. Proceedings of the 7th World Congress of Biomechanics Meeting. Boston, Massachusetts, July 2014.

31. Diffendaffer AZ, Yentes JM, Wurdeman SR, Pipinos II, Johanning JM, Myers SA. Positive ankle work is decreased in peripheral arterial disease before the onset of claudication pain. Proceedings of the 7th World Congress of Biomechanics Meeting. Boston, Massachusetts, July 2014.
32. Yentes JM, Rennard SI, Blanke D, Stergiou N. Abnormal breathing strengthens locomotor respiratory coupling. Proceedings of the 7th World Congress of Biomechanics Meeting. Boston, Massachusetts, July 2014.
33. Arnold B, Wurdeman SR, Yentes JM, Pipinos II, Johanning JM, Myers SA. Amount of step width variability is increased in patients with peripheral arterial disease. Proceedings of the 7th World Congress of Biomechanics Meeting. Boston, Massachusetts, July 2014.

Non-Peer Reviewed Oral Presentations

1. Koutakis P, Yentes JM, Myers SA, Kaipust JP, Johanning JM, Pipinos I, Stergiou N. (Presented by Yentes, JM). Lower extremity kinetics are altered in patients with unilateral peripheral arterial disease. Presented at the 1st Annual UNO Student Research and Creative Activity Fair. Omaha, Nebraska, March 2009.
2. Yentes JM, Stergiou N. Preliminary investigation into the effect of COPD on gait. Presented at the 2010 Nebraska Academy of Sciences Annual Meeting. Lincoln, Nebraska, April 2010.
3. Huben NB, Yentes JM, Koutakis P, Myers SA, Johanning JM, Pipinos II, Stergiou N. Gait impairment in PAD patients is independent of level of disease. Presented at the 2nd Annual UNO Student Research and Creative Activity Fair. Omaha, Nebraska, April 2010.
4. Yentes JM, Rennard SI, Stergiou N. COPD and Gait: The hip joint is affected. Presented at the 3rd Annual UNO Student Research and Creative Activity Fair. Omaha, Nebraska, April 2011.

Non-Peer Reviewed Poster Presentations

1. Hong S, Fang MA, Taylor CE, Yentes JM, Nouvong A, Masih S, Perell KL. The correlation between vertical ground reaction force and compressive knee joint reaction forces. Proceedings of *University of California Los Angeles, Undergraduate Research Day*. Los Angeles, California, May 2006.
2. Nasmyth M, Nguyen G, Schultz S, Aragaki D, Yentes J, Fang M. Effect of contralateral and ipsilateral cane use on peak vertical force. Proceedings of *University of California Los Angeles, VA GLAHS/UCLA 14th Annual PM&RS Residency Research Day*. Los Angeles, California, August 2007.
3. Yentes JM, Taylor CE, Perell KL, Harada ND, Aragaki DR, Fang MA. Beliefs about the consequences of cane use among adults with knee osteoarthritis. Proceedings of *University of California Los Angeles, 12th Annual UCLA Research Conference on Aging*. Los Angeles, California, September 2007.
4. Yentes JM, Heiney CC, Perell KL, Harada ND, Masih S, Fang MA. Effects of cane use on lower limb loading in knee osteoarthritis. Proceedings of the *University of California Los Angeles, 13th Annual UCLA Research Conference on Aging*. Los Angeles, California, September 2008.
5. Heiney C, Harada ND, Perell-Gerson KL, Aragaki DR, Masih S, Yentes J, Fang MA. Walking aids in the management of obesity-related knee osteoarthritis. Proceedings of the *University of California Los Angeles, 14th Annual UCLA Research Conference on Aging*. Los Angeles, California, September 2009.

6. Yentes JM, Decker LM, Myers SA, Rodríguez-Aranda CE, Potter JF, Stergiou N. Aging and dual task alter amount and structure of lower limb kinematic variability during gait. Proceedings of the *2nd Annual UNO Student Research and Creative Activity Fair*. Omaha, Nebraska, March 2010.
7. Huben NB, Yentes JM, Koutakis P, Myers SA, Johanning JM, Pipinos II, Stergiou N. Gait impairment in PAD patients is independent of level of disease. Proceedings of the *7th Annual UNMC SURP Research Colloquium*. Omaha, Nebraska, 2010.
8. Yentes JM, Decker LM, Fosnaugh EM, Teten AW, Potter JF, Stergiou N. Gait affects clustering and switching on semantic fluency. Presented at the *Midlands Chapter of Neuroscience Annual Meeting*. Omaha, Nebraska, December 2010.
9. Yentes JM, Stergiou N. Gait abnormalities in Chronic Obstructive Pulmonary Disease. Presented at the *2011 Nebraska Academy of Sciences Annual Meeting*. Lincoln, Nebraska, April 2011.
10. Yentes JM, Vallabhajosula S, Stergiou N. Adaptations in joint kinetics over consecutive steps in stair negotiation. Proceedings of the *4th Annual UNO Student Research and Creative Activity Fair*. Omaha, Nebraska, February 2012.
11. Yentes JM, Huang CK, Blanke D. The effect of exercise training on quality of life in patients with chronic obstructive pulmonary disease. Presented at the *2012 Nebraska Academy of Sciences Annual Meeting*. Lincoln, Nebraska, April 2012.
12. Huang CK, Yentes JM, Blanke D. The effect of exercise training on abnormal walking patterns in patients with chronic obstructive pulmonary disease. Presented at the *2012 Nebraska Academy of Sciences Annual Meeting*. Lincoln, Nebraska, April 2012.
13. Yentes JM, Stergiou N. Understanding walking and breathing coupling when abnormal breathing patterns are present. Presented at the *2013 Nebraska Academy of Sciences Annual Meeting*. Lincoln, Nebraska, April 2013.
14. Pisciotta EJ, Yentes JM, & Myers SA. Kinematic Variability and Accelerometers Demonstrate a Lack of Agreement. Presented at the *2014 5th Annual UNO Student Research and Creative Activity Fair*. Omaha, Nebraska, March 2014.
15. Pickhinke J, Pisciotta E, Yentes J. Sample entropy outperforms approximate entropy for large gait data sets. Presented at the *2014 Nebraska Academy of Sciences Annual Meeting*. Lincoln, Nebraska, April 2014.

Awards and Honors:

Recipient of UCAT Curriculum Development Grant for PE4630 (Biomechanics) April 2014
Recipient of Abstract Scholarship, Pulmonary Rehabilitation, American Thoracic Society March 2014
Recipient of UCAT Travel Award for AAHPERD 2013 February 2013
Central District AAHPERD Ruth Abernathy Presidential Scholarship Awardee January 2013
Recipient of NASA Nebraska Travel Award for AAHPERD 2013 January 2013
Recipient of NASA Nebraska Space Travel Fellowship AwardOctober 2012
University of Nebraska Medical Center Bukey and McDonald Fellowship 2012-2013
University of Nebraska Medical Center Regents Tuition Fellowship 2012-2013
Recipient of NASA Nebraska Travel Award for ASB 2012 June 2012
Recipient of NASA Nebraska Travel Award for GCMAS 2012..... May 2012
Recipient of NASA Nebraska Space Travel Fellowship Award Sept 2011
American Society of Biomechanics Student Travel Award June 2011
Recipient of NASA Nebraska Travel Award for ASB 2011 June 2011
Force & Motion Foundation Travel Scholarship June 2011
University of Nebraska Medical Center Patterson Fellowship 2011-2012
University of Nebraska Medical Center Regents Tuition Fellowship 2011-2012
Invited speaker for University of Nebraska Medical Center High School Alliance Graduation.. May 2011
Recipient of Student Travel Scholarship to the GCMAS 2011 Meeting..... April 2011
Recipient of Abstract Scholarship, Pulmonary Rehabilitation, American Thoracic Society April 2011
Awarded Best Graduate Oral Research Presentation, University of Nebraska at Omaha..... April 2011
Recipient of AAHPERD Graduate Student Grant-in-Aid March 2011
Recipient of NASA Nebraska Travel Award for ATS 2011 March 2011
Nominated to attend the Annual Lindau Meeting of Nobel Laureates and StudentsNov 2010
Recipient of NASA Nebraska Travel Award for Neuroscience 2010Nov 2010
Accepted to attend the National Institute on Aging Grants Technical Workshop.....Nov 2010
Recipient of NASA Nebraska Space Travel Fellowship Award Sept 2010
Recipient of NASA Nebraska Travel Award for JEGM 2010 April 2010
Recipient of Student Travel Scholarship to the JEGM combined meeting 2010 April 2010
Recipient of the American Society of Biomechanics Grant-in-Aid April 2010
Recipient of NASA Nebraska Space Grant AwardOctober 2009
Notable Poster Designation at the 2009 American College of Rheumatology Meeting Sept 2009
Recipient of NASA Nebraska Space Travel Award for Neuroscience 2009..... August 2009
Recipient of NASA Nebraska Space Grant AwardOctober 2008
Nominated for Special Incentive Award, VA West Los Angeles June 2008
“Connect the Vet” Goal Sharing Project, Team Leader, VA West Los Angeles Summer 2007
Golden Key International Honor Society, Chapter President, University of Northern Colorado2000
Student of the Year, University of Northern Colorado..... 1998 - 1999

Service:

Service to the Community

Volunteer, Nebraska Aids Project Midwest Ball	2014
Omaha Running Club Training Clinic	2014
Organize field trip for students from Little Priest Tribal College to visit UNO.....	2013-2015
Guest lecturer for Little Priest Tribal College Bridge Program.....	2013
UNMC High School Alliance Program Mentor	2010-2011
Lab tours for local middle and high school students	2008-2012
Math and English tutor for Los Angeles Unified School District	2006-2007

Service to the Profession

Reviewer, National Science Foundation, 2015 NSF Graduate Research Fellowship Program	2015
Mentor, SHAPE America’s Research Consortium Mentoring Program	2014
Mentor, American Society of Biomechanics Annual Meeting	2014
Reviewer, Gerontological Society of America 2014 Annual Meeting	2014
Reviewer, Gait and Clinical Movement Analysis Society 2014 Annual Meeting	2014
Reviewer, <i>Computer Methods in Biomechanics and Biomedical Engineering, Plos One,</i> <i>Frontiers in Neuroinformatics, Experimental Brain Research, Medical</i> <i>Engineering & Physics, Sports Medicine, Journal of Biomechanical</i> <i>Engineering, Transactions on Biomedical Engineering</i>	2014 -
Member, ASTM Standard for Verification of Force Measuring Platforms Proposal Com....	2013 -
Reviewer, <i>Behavior Research Methods, Journal of Applied Biomechanics, Motor Control,</i> <i>Human Movement Science, Microvascular Research</i>	2013 -
American Society of Biomechanics 2013 Conference Planning, Administrator.....	2012-2013
Student Representative, Gait and Clinical Movement Analysis Society	2011-2013
Reviewer, <i>Annals of Biomedical Engineering, Gait & Posture, Journal of Motor Behavior</i> <i>Journal of Sports Sciences, International Journal of Exercise Science</i>	2012 -
Ad-hoc Reviewer, <i>Footwear Science</i>	2011
Reviewer, American Alliance for Health, Physical Education, Recreation and Dance 2012 National Convention and Exposition	2011
Reviewer, National Center for Physical Development and Outdoor Play 2011 Head Start, Body Start Play Space Grant Applications	2011
Reviewer, Gait and Clinical Movement Analysis Society 2011 Annual Meeting	2011
Reviewer, <i>Journal of Neuroengineering and Rehabilitation</i>	2010 -

Service to the Institution

Member, GRACA Faculty Panel	2015
MavGrants Beta Tester	2014
Graduate Student Advising	2014
UNO Research and Creative Activity Fair Moderator	2014
Biomechanics Research Building, Design Committee, Member.....	2012-2013
University of Nebraska at Omaha, Annual Research and Creative Activity Fair Steering Committee, Graduate Student Member	2011-2012

College of Education Summer Scholars Biomechanics Tour Guide June 2011
 University of Nebraska at Omaha, School of Health, Physical Education and Recreation
 Student Representative, Biomechanics Faculty Search Committee Spring 2011
 UNMC High School Alliance Program Speaker, Interviewer, Program Analyst..... Spring 2011
 Annual Metro High School Athletic Training Day, Volunteer..... 2010-2013

Professional Associations:

Gerontological Society of America 2013 - Present
 North American Society for the Psychology of Sport and Physical Activity (NASPSPA)... 2010 - Present
 American Alliance of Health, Physical Education, Recreation and Dance (AAHPERD)..... 2010 - Present
 American Thoracic Society (ATS) 2011, 2014
 Gait and Clinical Movement Analysis Society (GCMAS)..... 2009 - Present
 Society for Neuroscience (SfN) 2008 - Present
 American Society of Biomechanics (ASB) 2006 - Present

Professional Meetings and Workshops Attended:

- Southern California Conference on Biomechanics, April 2005, Fullerton, California
- VA GLAHS/UCLA 13th Annual Physical Medicine and Rehabilitation Service Residency Research Day for Physicians and Rehabilitation Professionals, August 2006, Los Angeles, California
- 12th Annual UCLA Research Conference on Aging, June 2007, Los Angeles, California
- VA GLAHS/UCLA 14th Annual Physical Medicine and Rehabilitation Service Residency Research Day for Physicians and Rehabilitation Professionals, August 2007, Los Angeles, California
- 13th Annual Gait and Clinical Movement Analysis Society Meeting, April 2008, Richmond, Virginia
- 13th Annual UCLA Conference on Aging, June 2008, Los Angeles, California
- 14th Annual Gait and Clinical Movement Analysis Society Meeting, March 2009, Denver, Colorado
- Society for Neuroscience 39th Annual Conference, October 2009, Chicago, Illinois
- 2010 Nebraska Academy of Sciences Annual Meeting, April 2010, Lincoln, Nebraska
- 2010 University of Nebraska Medical Center Research Day, April 2010, Omaha, Nebraska
- 2010 joint meeting of the Gait and Clinical Movement Analysis Society and the European Society of Movement Analysis in Adults and Children (JEGM), May 2010, Miami, Florida
- Hutchinson Technology, Inc. Educational Program, October 2010, Minneapolis, Minnesota
- Society for Neuroscience 40th Annual Conference, November 2010, San Diego, California
- National Institutes on Aging Grants Technical Workshop, November 2010, New Orleans, Louisiana
- Midlands Neuroscience Annual Meeting, December 2010, Omaha, Nebraska
- Midwest Student Biomedical Research Forum, February 2011, Omaha, Nebraska
- 2011 Nebraska Summit on Entrepreneurship, February 2011, Omaha, Nebraska
- 16th Annual Gait and Clinical Movement Analysis Society Meeting, April 2011, Bethesda, Maryland
- 2011 American Thoracic Society Meeting, May 2011, Denver, Colorado
- 2011 Annual Meeting of the American Society of Biomechanics, August 2011, Long Beach, California
- 2012 Nebraska Academy of Sciences Annual Meeting, April 2012, Lincoln, Nebraska
- 17th Annual Gait and Clinical Movement Analysis Society Meeting, May 2012, Grand Rapids, Michigan
- APA Advanced Training Institutes: Nonlinear Methods for Psychological Science, June 2012, Cincinnati, Ohio
- 2012 Annual Meeting of the American Society of Biomechanics, August 2012, Gainesville, Florida
- AAHPERD National Convention and Expo, April 2013, Charlotte, North Carolina
- 2013 Nebraska Academy of Sciences Annual Meeting, April 2013, Lincoln, Nebraska
- 18th Annual Gait and Clinical Movement Analysis Society Meeting, May 2013, Cincinnati, Ohio

- 2013 Annual Meeting of the American Society of Biomechanics, September 2013, Omaha, Nebraska
- Aging, the CNS, and Mobility, The Gerontological Society of America, November 2013, New Orleans, Louisiana
- 2014 American Thoracic Society Meeting, May 2014, San Diego, California
- 7th World Congress of Biomechanics Meeting, July 2014, Boston, Massachusetts
- Measuring Rehabilitation Outcomes in Older Adults, Rehabilitation Institute of Chicago, July 2014, Chicago, Illinois
- Society for Chaos Theory in Psychology & Life Science Nonlinear Datapalooza, January 2015, Orange, California

Grant Writing Experience:

Federal Grants

National Institute of Health/NIA, Ruth L. Kirschstein National Research Service Award Individual Fellowship (F31)

Systemic inflammation and gait in older adults with COPD

PI: Yentes

Role: Primary author & award candidate

Submitted 12/8/08; Resubmitted 8/8/09; Resubmitted 4/8/10 – Not funded

National Institutes of Health/NHLBI, AREA Grant (R15)

Mechanisms of peripheral muscular abnormalities in COPD

PI: Stergiou

Role: Primary author & research coordinator

Submitted 10/25/10 – Not funded

US Department of Education/NIDRR, Field-Initiated Project

Restoration of physical activity in COPD: Alleviating disability through targeted intervention.

PI: Stergiou

Role: Primary author & graduate research assistant

Submitted 2/4/11 – Not funded

National Institutes of Health/NHLBI, R01

Walking and breathing in patients with chronic obstructive pulmonary disease

PI: Stergiou

Role: Primary author & research coordinator

Submitted 2/5/12 – Not funded

National Institutes of Health/NIBIB/NIAMS, Conference Grant (R13)

37th Annual Meeting of the American Society of Biomechanics

PI: Stergiou

Role: Primary author & Conference coordinator

Submitted 8/12/12 –Funded

National Institutes of Health, COBRE component project

Breathing and walking coupling variability in COPD

PI: Yentes

Role: Primary author & principal investigator

Submitted 2/16/14 – Funded

Department of Veterans' Affairs (CDA-2)

Predicting exacerbations through walking and breathing in COPD

PI: Yentes

Role: Primary author

Submitted 6/15/14 – Not funded

State Grants

Nebraska Department of Health and Human Services, Cancer and Smoking Disease Research

Systemic inflammation and gait in older adults with COPD

PI: Stergiou

Role: Primary author & research coordinator

Submitted 2/8/09 – Not funded

NASA Nebraska Space Grant & EPSCoR Research Mini-Grant
Restoration of function post-spaceflight through exercise rehabilitation
PI: Blanke
Role: Primary author & graduate research assistant
Submitted 5/12/11 - Awarded \$30,000

NASA Nebraska Space Grant & EPSCoR Research Mini-Grant
Entropy in large data sets
PI: Yentes
Role: Primary author
Submitted 5/15/13 - Awarded \$20,000

Nebraska Research Initiative
Portable device for early diagnosis of COPD exacerbations by monitoring breathing and walking
PI: Patil
Role: Primary author & Co-PI
Submitted 11/1/13

NASA Nebraska Space Grant & EPSCoR Research Mini-Grant
A novel and simple tool to define health
PI: Yentes
Role: Primary author
Submitted 5/15/14 – Awarded \$16,780

Foundation and Association Grants

American Society of Biomechanics, Graduate Student Grant-in-Aid
Systemic inflammation and gait in older adults with chronic obstructive pulmonary disease
PI: Yentes
Role: Primary author & award candidate
Submitted 1/15/10 - Awarded \$2,000

North American Society for the Psychology of Sport and Physical Activity, Graduate Student Research Grant
Fall risk in older adults and the association with structure of variability
PI: Yentes
Role: Primary author, award candidate & principal investigator
Submitted 4/1/10 - Not funded

American Alliance for Health, Physical Education, Recreation and Dance, Graduate Student Research Grant
Mechanical abnormalities in chronic obstructive pulmonary disease
PI: Yentes
Role: Primary author, award candidate & principal investigator
Submitted 9/29/10 – Accepted for Phase II - Awarded \$3,000

American Lung Association Lung Health Dissertation Award
Mechanisms of peripheral muscular abnormalities in COPD
PI: Yentes
Role: Primary author, award candidate & principal investigator
Submitted 10/21/10 – Not funded

Institutional Grants

University of Nebraska Medical Center, Center for Clinical and Translational Research Pilot Grant
Systemic inflammation and gait in older adults with COPD
PI: Rennard
Role: Primary author & Co-PI
Submitted 5/13/09 - Awarded \$19,834.80

University of Nebraska Medical Center, Graduate Student Fellowship
Mechanisms of peripheral muscular abnormalities in chronic obstructive pulmonary disease
PI: Yentes
Role: Primary author & award candidate
Submitted 2/15/10; Resubmitted 2/15/11 - Awarded \$21,600/year + Regents Tuition Fellowship

Center for Clinical and Translational Research, Consortium Translational Research RFA
Gait abnormalities in chronic obstructive pulmonary disease
PI: Stergiou & Rennard
Role: Primary author & research coordinator
Submitted 4/30/10 - Not funded

University of Nebraska at Omaha, Fund for Investing in the Field of Enterprise (FIRE) Grant
A collaborative research effort to understand the mechanisms of chronic obstructive pulmonary disease
PI: Stergiou
Role: Primary author
Submitted 2/21/11; Resubmitted 1/2/13 – Not funded

Technical Skills/Equipment Experience:

- 3-D motion capture (Falcon and Eagle systems, Including Cortex, EvaRT and Orthotrak software, Motion Analysis Corporation; Optotrak Certus system, NDI, Inc.)
- Analog and digital force plates (Kistler, AMTI)
- Computer programming (Matlab, Mathworks, Inc.; Java, Oracle Corporation; LabVIEW, National Instruments; E-prime, Psychology Software Tools, Inc.; Computer Speech Lab, KayPentax)
- Neurocom Balance Manager (Clinical and Research Modules)
- Instrumented staircase (custom built)
- Instrumented treadmills (Bertec Corporation & AMTI)
- In-shoe pressure system (Pedar plantar pressure system, Novel Electronics, Inc.)
- Electromyography (Wireless Myomonitor EMG, Delsys, Inc.)
- Isokinetic dynamometer (Biodex isokinetic testing systems 2.0 & 3.0)
- Body composition testing
- Portable VO₂ aerobic capacity testing (Kb⁴, Cosmed)
- Spirometry (MicroLoop, MicroDirect)
- Oximeter (InSpectra StO₂, Hutchinson Technology, Inc.)
- Physiological monitor (Zephyr, Inc.)

Related Coursework

- Physics
 - Classical Mechanics
- Mathematics
 - College Trigonometry
 - Linear Algebra
 - Calculus I, II, III
 - Differential Equations
 - Dynamical Systems and Chaos Theory
 - Nonlinear Mathematical Applications
- Computer Science
 - Introduction to Computer Programming I and II
 - Matlab Programming
 - Data Structures
- Engineering
 - Statics
 - Dynamics
 - Elastic Bodies
- Psychology
 - Cognitive Psychology

Synergistic Activities

- Supervise the Balance Laboratory within the Biomechanics Research Laboratory
- Oversee a research team of four Master's students including mentoring of their research projects
- Mentoring of junior graduate students and undergraduate students
- Development of inventions and intellectual property with collaborators
- Marketing Director of the Biomechanics Research Building
- Designed and wrote the annual newsletter of the Nebraska Biomechanics Core Facility/Biomechanics Research Building for the past three years