

Nicoleta L. Bugnariu

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PROFESSIONAL EXPERIENCE

Vice Provost, Community Engagement	2019 - University of North Texas Health Science Center
Interim Dean	2016 - 2018 School of Health Professions University of North Texas Health Science Center
Associate Dean Academic Affairs and Research	2014 - 2016 School of Health Professions University of North Texas Health Science Center
Director of Research	2012 - 2014 Physical Therapy Department University of North Texas Health Science Center
Professor	2017- Physical Therapy Department University of North Texas Health Science Center Member Institute for Healthy Aging
Associate Professor Tenured (2013)	2009 - 2017 Physical Therapy Department University of North Texas Health Science Center
Assistant Professor Physiotherapy	2007 - 2009 School of Rehabilitation Sciences, Cross appointed, School of Human Kinetics University of Ottawa, Canada
Lecturer Physiotherapy	2004 - 2006 School of Physical and Occupational Therapy McGill University, Canada
Physical Therapist and Lab Instructor	2001- 2004 Faculty of Medicine and School of Rehab Sciences University of Ottawa, Canada
Research Assistant	1997- 2000 Motor Control Laboratory University of Ottawa, Canada

Physical Therapy License:

Texas, USA: 1162207
Ontario, Canada: 13059

ACADEMIC QUALIFICATIONS AND EXPERIENCES

Executive Master in Business Administration	2017 - 2019 Neely School of Business Texas Christian University, TX, USA
<i>Hedwig van Ameringen</i> Executive Leadership in Academic Medicine® (ELAM)	2015 - 2016 Drexel University, College of Medicine Philadelphia, PA, USA
Postdoctoral Fellowship Rehabilitation Sciences	2005 - 2006 McGill University, Montreal, Canada
Doctorate in Philosophy Neuroscience	2005 University of Ottawa, Canada
Bachelor of Sciences, Physiotherapy Summa Cum Laude graduate University Gold Medal	1999 University of Ottawa Ottawa, Canada
Nursing Diploma Summa Cum Laude graduate	1991 Health Professions School Cluj-Napoca, Romania

ACADEMIC LEADERSHIP & SERVICE PHYLOSOPY

The process of building and executing a strategy that translates vision into reality energizes me. I strive to merge my drive and determination to move initiatives forward with a humble and positive attitude. I seek to equip, inspire, and leverage the talents, strengths and wisdom of teams and collaborative networks to create innovative solutions. My greatest privilege and satisfaction as a leader comes from investing in individuals and teams, seeing people reach their full potential while achieving shared goals. I invest in the development of people I work with and I hold them accountable to very high standards. My leadership' guiding framework for building a thriving community aligned and invested in a shared vision, meshing strategy with execution and achieving meaningful outcomes is based on the following principles:

- “Live for a grander vision”**
Inspire and empower others to maximize potential and make the world a better place
- “Yes, and... instead of Yes, but...”**
Focus on the positive; look for, see and seize the opportunities
- “Nobody raises to low expectations”**
Strive for excellence and set clear, high expectations
- “Bring light, not heat”**
Listen actively and respectfully, invite, value and celebrate diversity of thought
- “Words are not enough, Actions speak so loud, I cannot**

hear your words”

Effectively explain “why”, communicate timely, honestly, repeatedly, honor commitments

“Expand the pie”

Create long-lasting, mutually beneficial partnerships and networks through collaboration

“Everybody wins when a leader gets better”

Learn and continuously improve as a leader, build up and create opportunities for other leaders

Selected Experiences in Academic Leadership

1. Developed and implemented the School of Health Professions (SHP) strategic plan (2016-2020) aligned with the university strategic goals. The SHP plan addresses specific needs in clinical education, as well as changes in the education and healthcare sectors and identifies future growth direction, addition of new programs, timelines, and outcome metrics, while providing a framework for financial management and decision-making. A compelling business plan and academic proposal received all regulatory approvals for adding a Master in Lifestyle Health Sciences & Coaching (2018), in the School portfolio. This new online program has an anticipated enrollment of 60 students in the first cohort with a projected net effect on operations of more than 1.5 million/year
2. Cultivated relationships with community partners and several foundations that enhanced university’s brand through engagement in the community, which resulted in increased philanthropic support for the Fit Steps for Life, a program for cancer patients (2019).
3. Expanded the mission of the office of Admission to include “Student Success” throughout the entire period of their enrollment with the institution, with the goal of attracting and maximizing the success of a diverse student body in the School of Health Professions (2017). A \$500,000 fund managed by the UNTHSC foundation supports this initiative (2018).
4. Fostered an education enterprise emphasizing interprofessional education, experiential learning, scientific inquiry, and collaborative practice. The Doctor of Physical Therapy and the Master in Physician Assistant Studies programs are fully accredited, with impressive student outcomes in terms of graduate rates (both PA and PT 99%), passing of national licensure exams (100% overall pass-rate for both programs) and employment (100% graduates employed in their field at 6 months post-graduation) . We implemented “Learning Communities” (2014) and the “ADVANCE” program (2016) to ignite and sustain faculty and staff development.
5. Strengthened the Physical Therapy Department’ research enterprise with the creation of the Human Movement Performance (HMP) laboratory, a collaborative, interdisciplinary, multi-PI core research facility (2012-2014). We attracted faculty and research staff personnel with diverse backgrounds, research expertise with synergistic interests. Currently the HMP laboratory hosts four principal investigators, a biomedical engineer, two project coordinators and four full-time research associates. We established effective collaborations within the institution as well as with other universities, clinical and industry partners. As a team, we attracted and currently hold external funding from NIH, NSF and several foundations.

RESEARCH & SCHOLARSHIP

I have research expertise in motor control, and systems neuroscience and I have clinically worked with patients across the lifespan and with a variety of neurologic conditions. I use virtual reality technology and robotics, to investigate hypotheses related to the control of movement, mobility, balance, functional

limitations and rehabilitation protocols. I conduct my research in the Human Movement Performance laboratory at UNTHSC (<https://www.unthsc.edu/research/human-movement-performance-lab>) where we built a network of collaborators, a diverse team of researchers, engineers and clinicians with expertise in physical therapy, neuroscience, geriatrics, biomechanics, kinematics, robotics, and cognitive psychology.

1. One line of research investigates the **sensory-motor development of children with Autism Spectrum Disorders (ASD)**. The hypothesis is that assessment of motor function and postural control, which are the infant's "first language," can serve as a common baseline when comparing and studying different syndromes. The aim is to identify specific sensory-motor delays/impairments as potential markers for early screening and diagnosis of ASD. We have developed tools and algorithms to evaluate the motor function and quantify severity of impairments, resulting in provisional patent.
2. Another line of research investigates the use of technology such as **virtual environments and robotic devices as tools for evaluation and treatment in the rehabilitation process**. We developed multi-modal skin sensors for improving functional movements in patients using different technologies of prostheses. In collaboration with engineers from UTARI we developed and tested soft-robotic gloves for opening spastic hands in patients with stroke and cerebral palsy diagnosis.
3. Another line of research investigates the **basic mechanisms and systems controlling posture and movement across the life span, in healthy and neurologically impaired populations**. Efforts to develop this research focused on applied, translational research designed to improve current rehabilitation practice that directly affect the health of patients. We developed **falls prevention interventions** through retraining sensory weighting coupled with a vibrotactile biofeedback system for patients with peripheral neuropathies. We also showed that **hearing aids** have an impact beyond improving speech recognition and **can improve balance control and decrease fall risk**.

Peer Reviewed Publications:

1. Miller L.H,
 - Caçola P; Sherrod G; Patterson R; **Bugnariu, N** (2019) . Children with Autism Spectrum Disorder, Developmental Coordination Disorder, and typical development differ in characteristics of dynamic postural control: a preliminary study; *Gait & Posture*, vol (67), 9-11, <https://doi.org/10.1016/j.gaitpost.2018.08.038>
2. Wijayasinghe, I.B., Kumar Das, S, Miller L.H, **Bugnariu N**, Popa D; (2019). Head-Eye Coordination of Humanoid Robot with Potential Controller. *Journal of Intelligent and Robotic Systems* 94:15–27 accepted October 2018, published online December 2018, <https://doi.org/10.1007/s10846-018-0948-8>
3. Kowalewski, V., Patterson, R., Hartos, J., & **Bugnariu, N.** (2018). Hearing Loss Contributes to Balance Difficulties in both Younger and Older Adults. *Journal of Preventive Medicine*, 3(2), 12. PMC5937231 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6017998/>
4. Arnold, J. C., Cantu, M. A., Kasanga, E. A., Nejtsek, V. A., Papa, E. V., **Bugnariu, N.**, & Salvatore, M. F. (2017). Aging-related limit of exercise efficacy on motor decline. *PLoS ONE*, 12(11), e0188538. <http://doi.org/10.1371/journal.pone.0188538>
5. Nordon-Craft A, Schwarz B, Kowalewski V, Hartos J, Jurado Severance J, **Bugnariu N.**, (2017) Service Learning enhances Physical Therapy Students' Ability to examine Fall Risk in Older Adults. *J Allied Health*. 2017 Fall; 46 (3):e51-e58. PMID [28889172](https://pubmed.ncbi.nlm.nih.gov/28889172/)
6. Haghshenas-Jaryani M; Nothnagle C; Patterson R; **Bugnariu N**; Wijesundara M; (2017) Soft Robotic Rehabilitation Exoskeleton (REHAB Glove) for Hand Therapy. Proceedings of the ASME 2017 International Design Engineering Technical Computers & Information in Engineering Conference, Vol 3: 10th Frontiers in Biomedical Devices, <http://proceedings.asmedigitalcollection.asme.org/proceeding.aspx?articleid=2662085>
7. Miller, H. L., Patterson, R., Wijayasinghe, I., Popa, D., & **Bugnariu, N.** (2017, June). Development of a novel visuomotor integration paradigm by integrating a virtual environment with mobile eye-tracking and motion-

capture systems. Virtual Rehabilitation (ICVR), 2017 International Conference on **IEEE Xplore**:
[DOI:10.1109/ICVR.2017.8007481](https://doi.org/10.1109/ICVR.2017.8007481)

8. Wijayasinghe, I.B., Ranatunga I., Balakrishnan N, **Bugnariu N**, Popa D; (2016) Human-Robot Gesture Analysis for Objective Assessment of Autism Spectrum Disorder. International Journal of Social Robotics (2016) 8: 695. doi:10.1007/s12369-016-0379-2, [DOI: 10.1007/s12369-016-0379-2](https://doi.org/10.1007/s12369-016-0379-2)
9. Papa E, Hassan M, **Bugnariu N** (2016). The effects of performance fatigability on postural control and rehabilitation in the older patient. Current Geriatrics reports. Vol 5 (3), pp 172–8, e-ISSN 2196-7865, DOI:10.1007/s13670-016-0179-4 <https://link.springer.com/article/10.1007/s13670-016-0179-4>
10. Miller, H. L., & **Bugnariu, N.** (2016). Level of immersion impacts the effectiveness of virtual environments used to assess or teach social skills in Autism Spectrum Disorder. Cyberpsychology, Behavior, and Social Networking, 19(4), 246-256. PMID: [26919157](https://pubmed.ncbi.nlm.nih.gov/26919157/) , DOI:[10.1089/cyber.2014.0682](https://doi.org/10.1089/cyber.2014.0682)
11. Haghshenas-Jaryani M; Carrigan W; Patterson R; Niacaric T; **Bugnariu N**; Wijesundara M; (2016) Kinematic Study of a Soft-and-Rigid Robotic Digit for Rehabilitation and Assistive Applications, International Design Engineering Technical Conferences and Computers and Information in Engineering Conference Proc. ASME. 40th Mechanisms and Robotics Conference, August, 2016, Charlotte, NC. DOI: 10.1115/DETC2016-59921
12. Indika B. Wijayasinghe, Haylie L. Miller, Sumit K. Das; **Nicoleta L. Bugnariu**, Dan O. Popa (2016) Human-like object tracking and gaze estimation with PKD android. Proc. SPIE 9859, Sensors for Next-Generation Robotics III, 985906 (May 13, 2016); DOI:10.1117/12.2224382 <http://proceedings.spiedigitallibrary.org/proceeding.aspx?articleid=2523640>
13. Sanford J; Young C; Cramer S; Popa D; **Bugnariu N**; Patterson R; (2015) Grip Pressure and Wrist Joint Angle Measurement during Activities of Daily Life Procedia Manufacturing , Applied Human Factors Ergonomics, Sciencedirect.com 2351-9789 [DOI:10.1016/j.promfg.2015.07.321](https://doi.org/10.1016/j.promfg.2015.07.321)
14. Sanford J; Young C; Popa D; **Bugnariu N**; Patterson R; Grip pressure measurements during activities of daily life . (2014) Proc. SPIE 9116, Next-Generation Robots and Systems, 91160H, DOI:10.1117/12.2060167<http://proceedings.spiedigitallibrary.org/proceeding.aspx?articleid=1880762>
15. Kennedy A, **Bugnariu N**, Gravel A, Sveistrup H. (2013) Adaptation of the Feedforward Postural Response to Repeated Continuous Postural Perturbations *Neuroscience & Medicine*, 2013, 4, 45-49 Published Online March 2013, DOI: [10.4236/nm.2013.41007](https://doi.org/10.4236/nm.2013.41007)
16. Patterson MR, Longnecker R, Knebl J, **Bugnariu N.** (2013) Effect of age on performance of task with sensory conflicts. Proc. 10th International Conference on Virtual Rehabilitation (ICVR 2013), Page(s):22 – 26, Publisher IEEE, ISBN: 978-1-4799-0774-8, DOI 10.1109/ICVR.2013.6662078 <http://ieeexplore.ieee.org/document/6662078/>
17. **Bugnariu N**, Garver C, de Weerd C, van Loon E, Young C, Longnecker R, Rockenbach K, Patterson MR. (2013). Motor function in children with Autism Spectrum Disorders. Proc. 10th International Conference on Virtual Rehabilitation (ICVR 2013), Page(s): 51-56 Publisher IEEE, ISBN: 978-1-4799-0774-8, DOI10.1109/ICVR.2013.6662080 <http://ieeexplore.ieee.org/document/6662080/>
18. **Bugnariu N**, Young C, Rockenbach K, Patterson MR, Garver C, Beltran M, Ranatunga I, Torres NA, Popa D. (2013) Human-robot interaction as a tool to evaluate and quantify motor imitation behavior in children with Autism Spectrum Disorders Proc. 10th International Conference on Virtual Rehabilitation (ICVR 2013) , Page(s): 57-62, Publisher IEEE, ISBN: 978-1-4799-0774-8, DOI 10.1109/ICVR.2013.6662088 <http://ieeexplore.ieee.org/document/6662088/>
19. Ranatunga I, Beltran M, Torres NA, Patterson MR, **Bugnariu N**, Garver C, Popa D, Human-Robot Upper Body Gesture Imitation Analysis for Autism Spectrum Disorders, (2013) , In Social Robotics, Volume 8239 of the series Lecture Notes in Computer Science pp.218-228 DOI: 10.1007/978-3-319-02675-6_22 , http://link.springer.com/chapter/10.1007%2F978-3-319-02675-6_22
20. Ranatunga I, Torres NA, Patterson MR, **Bugnariu N**, Stevenson M, Popa D, (2012) “RoDiCA: a Human-Robot interaction system for treatment of Childhood Autism Spectrum Disorders” PETRA, ACM ISBN: 978-1-4503-1300-1 DOI:[10.1145/2413097.2413160](https://doi.org/10.1145/2413097.2413160)
21. Brosseau L, George A, Tugwell P, Egan M, Dubouloz CJ, Casimiro L, **Bugnariu N**, Welch VA, Francoeur L, Milne S, Loews L, McEwan J (2011) “Ottawa Panel Evidence Based Clinical Practice Guidelines in the Management of Osteoarthritis in obese and overweight adults.,” Physical Therapy, (2011) , Vol 91, No 6:1-19, Epub 2011 Apr 14 PMID: [21493746](https://pubmed.ncbi.nlm.nih.gov/21493746/) , DOI: [10.2522/ptj.20100104](https://doi.org/10.2522/ptj.20100104)

22. **Bugnariu N, Fung J**, Virtual environments and sensory integration: (2010) Effects of aging and stroke. Rehabilitation: the contribution of virtual reality *Schedae*. 2010; 1: 59-76.
<https://www.unicaen.fr/puc/images/preprint0052010.pdf>
23. **Bugnariu N, Belore J.**, (2009) The characteristics of a successful first step in balance recovery strategy: effect of aging. International Symposium for Posture & Gait Research, Proc, pp 66-67
24. **Bugnariu N, Fung J**, (2007) Aging and selective sensorimotor strategies in the regulation of upright balance, Journal of NeuroEngineering and Rehabilitation, 4(19), PMID: [17584501](#), DOI: [10.1186/1743-0003-4-19](#)
25. **Bugnariu N, Fung J.**, (2007) Effects of aging and stroke on sensory recalibration in the control of upright balance, International Symposium for Posture and Gait Research, Proc pp, 38-39
26. **Bugnariu N, Fung J.**, (2006) Aging and selective sensorimotor strategies in the regulation of upright balance, International Workshop of Virtual Reality Proceedings, pp 154-162 Publisher IEEE, ISBN:14244-0280-8, DOI:10.1109/IWVR.2006.1707551 <http://ieeexplore.ieee.org/document/1707551/>
27. **Bugnariu N, Sveistrup H**, (2006) Age-related changes in postural responses to externally- and self-triggered continuous perturbations, Archives of Gerontology and Geriatrics 42:73-89, PMID: [16084609](#), DOI: [10.1016/j.archger.2005.05.003](#)
28. **Bugnariu N, Sveistrup H.**, (2005) A model explaining age-related differences in postural responses to continuous perturbations, International Symposium for Posture and Gait Research, Gait and Posture, Vol 21, S138, [http://dx.doi.org/10.1016/S0966-6362\(05\)80456-4](http://dx.doi.org/10.1016/S0966-6362(05)80456-4)
29. **Bugnariu N, Sveistrup H**, (2001) Healthy aging is characterized by greater losses in feedforward than in feedback postural control mechanisms, in: Duysens J, Smits-Engelsman B, Kingma H (eds.) Control of Posture and Gait, Maastricht, pp. 330-334.

Peer Reviewed Scientific and Professional Presentations:

1. **Bugnariu N, Patterson R, Miller H, Thibodeau L**; (2019) Complex problems require complex solutions - Dynamic postural control in ecologically valid virtual environments. Platform presented at the ISPGR 2019 World Congress
2. **Bugnariu N, Kowalewski V, Patterson R, Thibodeau L**; (2019) The effect of hearing loss on balance control - do hearing aids help? Poster presented at the ISPGR 2019 World Congress
3. **Bugnariu N, Puissegur O, Patterson R, Gordon S**; (2019) Type of prosthesis influences functional performance and quality of life in patients with trans-tibial amputation. Poster presented at the ISPGR 2019 World Congress
4. **Horne T, Janci Burns J, Blankenship D, Sherrod G, Bugnariu N, Miller H**; (2019) Visual context relates to impairments in both dynamic and static postural control in individuals with Autism Spectrum Disorder (ASD) relative to typical development. Platform presented at APTA CSM 2019
5. **Watson T, Wilson-Garcia M-C, Salvatore M, Bugnariu N**; (2019) Does High Intensity Aerobic Exercise Improve Postural Control for Older Adults? Poster presented at APTA CSM 2019 and WCPT 2019
6. **Kowalewski V, Thibodeau L, Patterson R, Bugnariu N**; (2019) The effect of hearing loss on balance control Poster, Poster presented at World Congress of Physical Therapy, 2019
7. **Papa E, Hassan M, Patterson R, Bugnariu N**; (2019) Effects of muscle fatigue on mobility and postural control stability in Parkinson disease. Poster presented at World Congress of Physical Therapy, 2019
8. **Rodriguez N, Najera Y, Chan R, Bugnariu N**; (2018) Effects of the Motion Wellness System on balance, coordination, strength and quality of life in older adults: a survey study. Platform presented at APTA CSM 2018
9. **Hebron A, Schwarz B, Kowalewski V, Patterson R, Bugnariu N** (2018, February) Retraining Sensory Weighting Using Virtual Environment and Vibrotactile Biofeedback. Poster presented at APTA CSM 2018
10. **Kowalewski V, Thibodeau L, Patterson R, Bugnariu N** (2018) Auditory inputs contribute to balance control in healthy young and older adults: a simulated hearing loss experiment. Poster presented at 27th Annual Meeting of the Neural Control of Movement, Santa Fe NM
11. **Miller, H. L., Caçola, P., Sherrod, G. S., & Bugnariu, N. L.** (2018, May) Individuals with Autism Spectrum Disorder meet criteria for Developmental Coordination Disorder. Poster presented at the annual meeting of the International Society for Autism Research (INSAR), Rotterdam, Netherlands

12. Papa E, Hasan M, **Bugnariu N** (2017, June). Effect of a Novel Two-Phase Rehabilitation Program on Fall Recovery Kinematics in Older Adults. Poster presented at the World Congress of the International Society for Posture and Gait Research, Fort Lauderdale, FL.
13. Miller, H. L., Caçola, P., & **Bugnariu, N. L.** (2017, June). Dynamic postural control in typical development, Autism Spectrum Disorder and Developmental Coordination Disorder. Platform presentation at the World Congress of the International Society for Posture and Gait Research, Fort Lauderdale, FL.
14. Miller, H. L., Caçola, P., Sherrod, G., & **Bugnariu, N.** (2017, June). Visuomotor integration and postural stability in children with DCD and ASD. Presented at 12th International Conference on Developmental Coordination Disorder (DCD 12), Freemantle, Australia.
15. Miller, H. L., Caçola, P., Sherrod, G., & **Bugnariu, N. L.** (2017, May). Visuomotor Integration: A potential biomarker of Autism Spectrum Disorder in lab and community-based settings. Platform presentation at the International Meeting for Autism Research, San Francisco, CA.
16. Miller, H. L., Sherrod, G., & **Bugnariu, N.** (2017, April). Ready, Aim...Fire? Hand-eye coordination impairments in Autism Spectrum Disorder during a virtual shooting gallery task. Poster presented at the Society for Research in Child Development 2017 Annual Meeting, Austin, TX.
17. Miller, H. L., Caçola, P., Sherrod, G., & **Bugnariu, N.** (2017, April). Eye and body movement as promising biomarkers and intervention targets in Autism and Developmental Coordination Disorder. Poster presented at the Society for Research in Child Development 2017 Annual Meeting, Austin,
18. Kowalewski K, Kinzler B, Thibodeau L, Patterson R, **Bugnariu N** Contribution of auditory inputs to balance in young and older adults. Poster presented at APTA CSM 2017
19. Green K, Miller H, Mattingly L, Bugnariu N. Atypical eye movements and postural control in Autism Spectrum Disorders Poster presented at APTA CSM 2017
20. Fox J, Kowalewski K, Thibodeau L, Patterson R, **Bugnariu N** The impact of hearing loss on older adult's postural control and gait function. Poster presented at APTA CSM 2017
21. Kowalewski K, Thibodeau L, Patterson R, **Bugnariu N** Contribution of auditory inputs to balance in older adults. Poster presented at APTA CSM 2016
22. Crocker, K., Egerton Miller, H., Patterson, R., **Bugnariu, N.** Visuomotor integration in atypical development. Poster presented at the APTA CSM 2016
23. Cummings D, Zavadasky, M. Addington R., **Bugnariu, N.** Physical Therapists' role in community collaborative efforts to improve safety and prevent falls. Poster presented at the APTA CSM 2016
24. Peters R., Patterson R, Steven G, Ginzle E, **Bugnariu N.** Functional performance and quality of life in transtibial amputees is influenced by the type of prosthesis. Poster at the APTA CSM 2016
25. **Bugnariu N**, "Impact of Dynamic Response Prosthetic Feet on Functional Performance and Quality of Life" Presentation, International Society for Prosthetics & Orthotics World Congress, 2015
26. **Bugnariu N**, Steven G, Ginzle E, Patterson RM; "Functional performance and quality of life in patients with transtibial amputations is influenced by type of prosthesis", Platform presentation, World Congress of Physical Therapy, 2015, abstract in Physiotherapy 101:e184-e185, 05/2015
27. **Bugnariu N**, Popa D, Young C, Sanford J, Patterson RM "Kinematics and hand grip force patterns in recorded during the task of opening a door" Poster, World Congress of Physical Therapy, 2015, abstract published Physiotherapy 101:e186 · 05/2015
28. **Bugnariu N**, Schwarz B, Severance J, Nordon-Craft A; "Service learning activities in physical therapy education- what factors really make a difference?" Poster, World Congress of Physical Therapy, 2015 abstract published Physiotherapy 101:e185-e186. 05/2015
29. **Bugnariu N**, Thibodeau L, "The effect of different types of hearing aids on postural control "Platform presentation at International Society of Posture and Gait Research World Congress, 2015
30. Schwarz B, Nordon-Craft A, Severance J, **Bugnariu N**, "Service-learning activities enhance physical therapy students' essential competencies in the care for older adults". Platform at APTA CSM 2015
31. White M, Richardson M, Aaron D, **Bugnariu N**; "Seniors in Action: A service learning fall prevention program and the effects of peer interaction on students' experience". Poster at APTA CSM 2015 - received Social Responsibility Award from the Global Health Special Interest and Outstanding Research Report SHP 2015
32. McCrory B, **Bugnariu N**; "The effect of sensory reintegration training with virtual reality and vibratory noise on gait in patients with diabetic peripheral neuropathy". Poster at APTA CSM 2015

33. Kowalewski V, **Bugnariu N**; The Effects of Hearing Loss on Balance in Older Adults: A Systematic Review” , Poster presented at APTA CSM 2015
34. **Bugnariu N**, Patterson RM, Gordon Stevens, “Functional performance and evaluation of dynamic feet response” , American Orthotics and Prosthetics Association National Assembly, Sept 2014
35. **Bugnariu N**, Thibodeau, Linda; Wilson, Phillip; Patterson, Rita M. “Hearing loss negatively impacts balance and gait by increasing cognitive load” presented at ISPGR 2014, Vancouver, CA
36. **Bugnariu N**, “Use of virtual environments for evaluation of human motor performance for clinical rehabilitation” Invited presentation at the NSF funded Symposium Title: Neural Functionality Failure Analysis and Augmented Repair. World Congress of Biomechanics, Boston, 2014
37. Miller, H. L., Patterson, R., Popa, D., Garver, C., de Weerd, C., & **Bugnariu, N.** (2014). Quantifying imitative behavior deficits in children with Autism Spectrum Disorder. Presented at the 2014 International Meeting for Autism Research, Atlanta, GA.
38. Rose, G., Nordon-Craft, A., Jaffari, R., Patterson, RM., and **Bugnariu, N.**, “Ischemia-induced reduction of somatosensory input decreases balance; added vibratory noise partially restores function”. APTA, CSM 2014
39. **Bugnariu N**, Thibodeau, Linda; Roeser, Ross; Wilson, Phillip; Patterson, Rita M. “Auditory impairments and their impact on postural control”. APTA, CSM 2014
40. **Bugnariu N**, Patterson RP, Popa D, Garver C. Motor function in children with Autism Spectrum Disorder: a cross-sectional longitudinal study. 2st Joint World Congress of ISPGR and Gait & Mental Function. June 2013 Akitta, Japan
41. **Bugnariu N**, Patterson R, Knebl J, The impact of individual perceptual style on ability to resolve sensory conflicts and maintain balance in healthy young and older adults, International Symposium for Posture and Gait Research, Platform, Trondheim 2012
42. Vanrenterghem J, **Bugnariu N**, Hawken MB, Sveistrup H. A theoretical perspective on experimentation models: ‘Response at Threshold Evaluation’. 1st Joint World Congress of ISPGR and Gait & Mental Function. Poster, Trondheim, Norway.(2012)
43. Patterson, R.M., Longnecker, R., Collins, D., Knebl, J., **Bugnariu, N.**, Effect of Age on Performance of Tasks with Spatial Conflicts, ASME 2012 Summer Bioengineering Conference, Puerto Rico, Platform, (2012).
44. **Bugnariu N**, Belore J., The characteristics of a successful first step in balance recovery strategy: effect of aging. International Symposium for Posture and Gait Research, Poster, (2009)
45. **Bugnariu N**, Fung J., Effects of aging and stroke on sensory recalibration in the control of upright balance, International Symposium for Posture and Gait Research, Platform, (2007)
46. **Bugnariu N**, Fung J., Aging and selective sensorimotor strategies in the regulation of upright balance, International Workshop of Virtual Reality Proceedings, Platform,(2006)
47. **Bugnariu N**, Fung J., Regulation of balance under concordant and discordant somatosensory and visual perturbations, Internat Society of Electrophysiology & Kinesiology, From research to practice, Poster, (2006)
48. **Bugnariu N**, Fung J., Selective sensory strategies in the regulation of upright balance in older adults can be entrained through exposure to sensory conflicts, 11th Annual Cybertherapy Conference, Platform (2006)
49. **Bugnariu N**, Sveistrup H., Feedback and Feedforward Postural Responses to Continuous Perturbations: Age-Related Changes in Balance Control; International Symposium for Posture and Gait Research Proceedings, Platform, (2003)

Book Chapters:

1. Lamontagne A; Keshner E A, **Bugnariu N**, Fung J, “Virtual reality reveals mechanisms of Balance and Locomotor impairments”. In: Weiss PL, Keshner EA, Levin M, eds. Virtual Reality for Physical and Motor Rehabilitation. New York: Springer; (2014), pp. 169-202
2. **Bugnariu N**, Fung J “ Virtual environments and sensory integration, in Francis Lestienne (eds) Rehabilitation : the contribution of virtual reality (2010), pp.39-56
1. **Bugnariu N**, “La contribution de la technologie de réalité virtuelle” in: Francis Lestienne (eds.) Réhabilitation, Caen Basse-Normandie, France (2009), pp.105-126

Abstracts

1. Saavedra, Alvaro O.; Williamson, Catherine H.; Patel, Visha; Dossou, Sarah S.; Mozdbar, Sima; Aryal, Subhash; Clark, Abbot F.; **Bugnariu, N**; (2019) Prevalence of Visual Impairments and their Potential Impact on the Daily Lives of Pre-K Children. Poster presented at Research Appreciation Day, UNTHSC 2019
2. Watson T, Wilson-Garcia M-C, Salvatore M, **Bugnariu N**; (2019) Does High Intensity Aerobic Exercise Improve Postural Control for Older Adults? Poster presented at Research Appreciation Day, UNTHSC 2019, Student received RAD School of Health Professions, Physical Therapy Program Poster Award – 2nd place
3. Wilson-Garcia M-C, Watson T, Salvatore M, **Bugnariu N**; (2019) The Impact of High Intensity Aerobic Exercise on Cardiovascular Function in Older Adults. Poster presented at TPTA 2019
4. Kowalewski K, Thibodeau L, Patterson R, **Bugnariu N**; (2018) Auditory inputs contribute to balance control in health young and old adults: a simulated hearing loss experiment. Poster at Neural Control of Movement 2018.
5. Kowalewski K, Patterson R, **Bugnariu N** The Effect of Hearing Aids on Balance. Poster presented at Research Appreciation Day, UNTHSC 2018
6. Bolinger E, Gray J, Dangelmayr K, Sherrod G, **Bugnariu N**, Haylie Miller, Postural control and use of eye movements differ during quiet standing in Autism Spectrum Disorder and Typical Development. Poster presented at Research Appreciation Day, UNTHSC 2018
7. Watson T, Papa E, **Bugnariu N**. Does Cognitive Restructuring Improve Postural Control in Older Adults? Poster presented at Research Appreciation Day, UNTHSC 2018, received RAD School of Health Professions Best Poster Department of PT
8. Bolinger, E. Gray, J., Dangelmayr, K., Sherrod, G., Dangelmayr, K., Sherrod, G., Bugnariu, N., & Miller, H. L. (2018) Postural control and use of eye movements differ during quiet standing in Autism Spectrum Disorder and Typical Development. Poster presented at Research Appreciation Day, UNTHSC 2018
9. Kowalewski V, Patterson R, Thibodeau L, **Bugnariu N**, Improving postural control in older adults with hearing loss – do hearing aids make a difference? Platform Presentation Rapid Five at World Confederation for Physical Therapy Congress, Cape Town July 2-4, 2017
10. Kowalewski V, Kinzler B, Bonin K, Schwarz B, **Bugnariu N**, A Matter of Balance Service Learning Activities positively impact both Physical Therapy students and seniors' confidence. Poster presented at World Confederation for Physical Therapy Congress, Cape Town July 2-4, 2017
11. Fox J, Kowalewski K, Thibodeau L, Patterson R, **Bugnariu N** The impact of hearing loss on older adult's postural control and gait function. Poster presented at Research Appreciation Day, UNTHSC 2017, received RAD School of Health Professions Best Poster Department of PT
12. Green K, Miller H, Mattingly L, **Bugnariu N**. Atypical eye movements and postural control in Autism Spectrum Disorders Poster presented at Research Appreciation Day, UNTHSC 2017
13. Kinzler B, **Bugnariu N** A Matter of Balance Service Learning Activities Positively Impact both Physical Therapy Students and Seniors Confidence. Poster presented at Research Appreciation Day, UNTHSC 2017
14. Kowalewski K, Kinzler B, Thibodeau L, Patterson R, **Bugnariu N** (2017) Contribution of auditory inputs to balance in young and older adults. Poster presented at World Confederation for Physical Therapy Congress, Cape Town July 2-4, 2017. Poster also presented at Research Appreciation Day, UNTHSC 2017
15. Wijesundara, M., Haghshenas-Jaryani, M., **Bugnariu, N.**, Patterson, R.M., (2016), Soft-and-Rigid Robotic Digit for Rehabilitation and Assistive Applications, ASME, Charlotte, NC, August 21-24,
16. Patterson, R.M., **Bugnariu, N.**, Niacaris, T., Haghshenas-Jaryani, M., Carrigan, W., Nothnagle, C., and Wijesundara, M.B.J., (2016) Kinematic Evaluation of a Wearable Soft Robotic System for Continuous Passive Motion in Post Stroke Hand Rehabilitation, Summer Biomechanics, Bioengineering, and Biotransport Conference, National Harbor, MD, 2016.
17. Miller, H. L., Mattingly, L., & **Bugnariu, N. L.** (2016). Postural stability and its limits in Autism Spectrum Disorder relate to visual context. Proceedings of the 2016 International Meeting for Autism Research (IMFAR), Baltimore, MD, 22645 146.192, www.autism-insar.org.
18. Miller, H. L., Caçola, P., Sherrod, G., Patterson, R., & **Bugnariu, N. L.** (2016). Postural Control Relates to Accuracy of Eye Movement in Autism Spectrum Disorder and Developmental Coordination Disorder, Proceedings of the 2016 International Meeting for Autism Research (IMFAR), 22679 146.191
19. Sherrod, G. M., Miller, H. L., Caçola, P. M., & **Bugnariu, N. L.** (2016, April). Preliminary evidence of a relationship between quantitative measures of postural stability and clinical movement tests in developmental coordination disorder. Poster at Research Appreciation Day, UNTHSC 2016

20. Crocker, K., Miller, H., Patterson, R., & **Bugnariu, N.** (2016, April). Visuomotor integration in atypical development. Poster presented at Research Appreciation Day, UNTHSC 2016. – received UTARI Poster Presentation Award from the University of Texas at Arlington Research Institute.
21. Edgerton, K., Miller, H., Mattingly, L., & **Bugnariu, N.** (2016, April). Atypical eye movements and postural control in Autism Spectrum Disorders. Poster presented at Research Appreciation Day, UNTHSC 2016
22. Miller, H. L., Caçola, P., Sherrod, G., Patterson, R., & **Bugnariu, N.** (2016, April). Visuomotor integration differences in individuals with autism spectrum disorder and developmental coordination disorder during static and dynamic postural control tasks. Poster presented at the Association for Clinical and Translational Science 2016 Annual Meeting, Washington, DC.
23. He C, Patterson R, Niagaris T, Haghshenas-Jaryani M, Wijesundara M, **Bugnariu N.** Development and validation of a REHAB glove device for post-stroke hand rehabilitation, Poster at Research Appreciation Day, UNTHSC 2016
24. Kowalewski K, Thibodeau L, Patterson R, **Bugnariu N** Contribution of auditory inputs to balance in young and older adults. Poster at Research Appreciation Day, UNTHSC 2016 received TCOM: 2nd Place Student Research Award
25. Cummings D, Zavadasky, M. Addington R., **Bugnariu, N.** Physical Therapists' role in community collaborative efforts to improve safety and prevent falls. Poster presented at Research Appreciation Day, UNTHSC 2016, received RAD School of Health Professions Best Poster Presentation and Outstanding Research Report Department of PT 2016
26. Peters R., Patterson R, Steven G, Ginzel E, **Bugnariu N.** Functional performance and quality of life in transtibial amputees is influenced by the type of prosthesis. Poster at Research Appreciation Day, UNTHSC 2016
27. Stanford, J., Young, C., **Bugnariu, N.**, Patterson, R.M., and Popa. D., Grip Pressure and Joint Angle Measurement during Activities of Daily Life, Applied Human Factors and Ergonomics (AHFE) 2015 International Conference, Las Vegas, Nevada, July 26-30, 2015.
28. **Bugnariu N**, Mattingly L and Miller H “Quantifying visuomotor differences in ASD: Preliminary data from a community sample” at 7th Annual UNT Adventures in Autism Intervention & Research Conference 2015
29. Young, C., Sanford, J., Popa, D., **Bugnariu, N.**, Patterson, R.M; “Maximum velocity of a hand push and pulling a cylinder”. South Central American Society of Biomechanics, 2015
30. Pair B, Jafari R, Patterson RM, **Bugnariu N**; “The use of virtual reality and a sub-threshold vibratory noise as a tool to enhance sensory reintegration and postural control among patients with diabetic peripheral neuropathy”. Poster presented at Research Appreciation Day, UNTHSC 2015
31. Kelly S, Steven G, Patterson RM, **Bugnariu N**; “Quality of Life Assessment in Transtibial Amputees using K2 vs K3 Prosthetics Feet” Poster presented at Research Appreciation Day, UNTHSC 2015, received 1st Place Honors Student Research Award
32. Johnson V, Camp K, Lardner D, **Bugnariu N**, Knebl J; “Reducing falls in post-acute Medicaid patients enrolled in the Safe Transitions for the Elderly Patient Program”. Poster at Research Appreciation Day, UNTHSC 2015
33. Camp K, Johnson V, **Bugnariu N**, Lardner D, Knebl J; “Role of Physical Therapy in the Interdisciplinary Team for Safe Transitions for Elderly Persons”. Poster presented at Research Appreciation Day, UNTHSC 2015
34. J Juarez J K, Young C, **Bugnariu N**, and Patterson RM, “Analysis of Approach and Motion Velocities in Dominant Hands While Performing Daily Activities” Poster at Research Appreciation Day, UNTHSC 2015
35. Patterson RM, Stanford J, Young C, Popa D, **Bugnariu N**, “Functional Task Analysis for Human-Machine Performance Limits”, BMES 2014 Annual Meeting, 2014 San Antonio, TX
36. Patterson, RM, Singhal, K, Young, C, and **Bugnariu, N**, Comparison of Upper Extremity Motion in a Virtual and Real World Task, 2014 World Congress of Biomechanics, July 6-11, 2014 Boston, MA.
37. Young, C, Stanford, J., Popa, D., **Bugnariu, N**, and Patterson, RM, Maximum Velocity of Opening a Door for Simulation, 2014 South Central American Society of Biomechanics Regional Meeting
38. Singhal, K., **Bugnariu, N.**, and Patterson, R., Methodological consideration for application of Multi-Scale Entropy on Center of Pressure data from children with Autism Spectrum Disorder- A Pilot Study, 2014 South Central American Society of Biomechanics Regional Meeting, Dallas, TX.
39. Joe Hidrogo, J, Stevens, G, Patterson, RM, and **Bugnariu, N**, “Functional Assessment of Balance and Gait in Transtibial Amputees using K2 vs. K3 Prosthetics Feet”. Poster at Research Appreciation Day, UNTHSC 2014

40. Rose, G., Nordon-Craft, A., Jafari, R., Patterson, RM., and **Bugnariu, N.**, “Ischemia-induced reduction of somatosensory input decreases balance; added vibratory noise partially restores function”. Poster presented at Research Appreciation Day, UNTHSC 2014, received RAD 2014 School of Health Professions Best Poster and Outstanding Research Report SHP
41. Francis Behan, Jafari Roozbeh, Rita Patterson, **Nicoleta Bugnariu** “Effectiveness of balance training with virtual reality and vibrotactile device in diabetic patients” Poster at Research Appreciation Day, UNTHSC 2014
42. M. Krishnan, H. L. Miller, **N.Bugnariu**, “The Current Use of Virtual Environments for Assessing and Treatment of Autism Spectrum Disorder” Poster presented at Research Appreciation Day, UNTHSC 2014
43. Kunal Singhal, **Nicoleta Bugnariu**, Rita M Patterson, “Methodological considerations for application of multiscale entropy – a pilot study” SCAB 2014
44. Carolyn Young, Joe Sanford, Dan Popa, Kunal Singhal, **Nicoleta Bugnariu**, Rita M Patterson “Maximum velocity of hand opening a door” SCAB 2014
45. Lawhon L, Point T, Spear C, Walden M, **Bugnariu N.** Effects of Ankle-Foot Orthoses on Function and Quality of Life in Patients Post Stroke, Poster presented at Research Appreciation Day, UNTHSC 2013
46. Bens S, Mason D, **Bugnariu N**, Longnecker R, Carr C, Patterson R. Osteopathic management of leg length inequality: Analysis of Altered Gait Kinetics & Kinematics. Poster Research Appreciation Day, UNTHSC 2013
47. **Bugnariu N**, Cummings D., Longnecker R., Patterson R, “Age-related changes in performance of tasks requiring executive assistance”, Poster, Abstracts 186.14. Society for Neuroscience 2012
48. Cummings D., Longnecker R., Patterson R., Coen de Weerd, **Bugnariu, N.**, Development of a virtual environment to evaluate and retrain upper limb movements; Poster Research Appreciation Day, UNTHSC 2012
49. McCain J, Patterson R, Longnecker R, Knebl J, **Bugnariu N.**, Effect of age on performance of tasks with spatial conflicts; Poster presented at Research Appreciation Day, UNTHSC 2012
50. James S, Patterson R, Longnecker R, **Bugnariu N.**, Age-related changes in standing balance and perception of verticality, Poster presented at Research Appreciation Day, UNTHSC 2012
51. Barron R, Patterson R, Longnecker R, Collins D, **Bugnariu N**, Opening a door into the future: assessing and retraining arm kinematics using virtual reality , SMART 2011
52. **Bugnariu N**, Emond V, Tremblay F, Age-related changes in plantar sensibility and their impact on stepping reactions, Abstracts 788.4. Society for Neuroscience 2010
53. Belore J, **Bugnariu N**, Age-related loss of plantar sensation changes the first step generated for balance recovery, Poster presented at Research Appreciation Day, UNTHSC 2010
54. Belore J, **Bugnariu N** Program No. 275.23 Age-related changes in the first step generated for balance recovery Abstracts viewer/Itinerary Planer. CD-ROM, Society for Neuroscience 38, (2008)
55. **Bugnariu N**, Fung J, Stroke and selective sensorimotor strategies in the regulation of upright balance, Program No. 353.1 Abstracts viewer/Itinerary Planer. CD-ROM, SFN 36, (2006)
56. **Bugnariu N**, Fung J., Selective sensory strategies in the regulation of upright balance in older adults can be entrained through exposure to sensory conflicts, 11th Annual Cybertherapy Conference, Virtual Healing-Designing Reality, pg.75 (2006)
57. **Bugnariu N**, Fung J., (2006) Regulation of balance under concordant and discordant somatosensory and visual perturbations, International Society of Electrophysiology and Kinesiology, From research to practice Proceedings, pp. 208
58. **Bugnariu N**, Sveistrup H, Effect of sensory facilitation of plantar foot surface boundaries on older adults’ postural responses to continuous perturbations, Program No. 272.15 Abstracts viewer/Itinerary Planer. CD-ROM, Society for Neuroscience 33, (2003) and REPAR 2005
59. **Bugnariu N**, Sveistrup H, Age related changes in feedforward postural responses to continuous perturbations. Program No. 566.13 Abstracts viewer/Itinerary Planer. CDROM, Society for Neuroscience 32, (2002)
60. **Bugnariu N**, Sveistrup H, Age related changes in postural responses to continuous perturbations, Program No. 326.15 Society for Neuroscience 31, (2001)
61. **Marhao (Bugnariu) N**, Robertson D.G.E., Sveistrup H, Infant bouncing: Production and regulation of moments and powers of lower limb. Gait and Posture, Vol. 9 Suppl 1, S60,(2000)
62. **Marhao (Bugnariu) N**, Sveistrup H, A longitudinal study of the development of bouncing behavior in infants. Gait and Posture, Vol. 9 Suppl 1, S61, (2000)

63. Eckstrand M, **Marhao (Bugnariu) N**, Robertson D.G.E., Sveistrup H, Postural reactions of the trunk during sitting following lateral tilt of the seat. *Gait and Posture*, Vol. 9 Suppl 1, S59, (2000)
64. **Marhao (Bugnariu) N**, McGregor J, Vallis L.A, Sveistrup H, Le contrôle postural lors de la station debout dans des conditions fournissant des informations sensorielles différentes chez les enfants normaux de quatre à dix ans. 67e Congrès de l'ACFAS, (1999)
65. **Marhao (Bugnariu) N**, Laplante M, Eckstrand M, Sveistrup H, Les réactions posturales du tronc à la suite d'une perturbation de la position assise par une inclinaison latérale du siège chez les adultes de 18 à 70 ans. 67e Congrès de l'ACFAS, (1999)
66. Brosseau L, Laferrière L, Fung J, **Marhao (Bugnariu) N**, Bernard J, MacDonell L, Effets d'un entraînement non conventionnel de la marche chez des patients hémiplegiques à l'aide d'une suspension avec et sans rétroaction tactile provenant d'une rampe. 67e Congrès de l'ACFAS, (1999)

Patents:

1. Provisional Patent: **“Objective Evaluation of Human Imitation of Robot Movement as an Indicator of Autism Spectrum Disorder (ASD) and/or Other Conditions”** United States Letters Patent, Serial No. 61/838,702 filed on June 24, 2013; Inventors: Dan Popa, Isura Ranatunga, and Nicoleta Bugnariu

Selected Invited Presentations:

- 2019 Neurological Recovery Clinic, “Virtual reality enhancing rehabilitation protocols for functional recovery”
- 2017 PT CCUs “*I relearned to walk at 25 years old – The neuroanatomy and psychology of a patient following brain tumor resection*”
- 2016 Sensorimotor Function in Neurotypical and Atypical Development “*Reaching in virtual environments and Soft glove robotics*”
- 2016 Patient Safety Summit, “*A new take on falls – Building safe communities through collaborative partnerships that prevent falls*”
- 2016 People's Hospital Ganzhou, China, “*Multifactorial risk assessments and evidence-based interventions to address falls in older adults*”
- 2016 Adventures in Autism Intervention & Research Conference: “*Visuomotor characteristics of static and dynamic balance in atypical development*”
- 2016 Ottobock Symposium “*Benefits of dynamic prosthetic feet for elderly dyvascular amputees*”.
- 2015 Adventures in Autism Intervention & Research Conference: “*Quantifying visuomotor differences in ASD: Preliminary data from a community sample*”
- 2014 Motek Meeting: “*Evaluating the impact of hearing loss on balance and gait with a V-gait system*”
- 2014 Senior Synergy Day, Ft. Worth 2014, “*Falls prevention*”
- 2013 Texas Health Resources: “*Good hearing, steady feet: Developing auditory devices that improve hearing and decrease the risk for falls*”
- 2013 IEEE Metrocon Biotechnologies: “*Virtual environments and robotic technologies as tools for evaluation of motor function in children with Autism Spectrum Disorders*”
- 2013 Reynolds Get It Geriatric Grand Rounds, UNTHSC: “*Preparing Students for Collaborative Practice: Using Interprofessional Student Health Care Teams in the SAGE Program*”
- 2013 Fort Worth Life Sciences Coalition: “*Robotics and Healthcare*”
- 2012 Adventures in Autism Intervention & Research Conference: “*Human-Robot Interaction System for Early Diagnosis and Treatment of Childhood Autism Spectrum Disorders*”
- 2012 Computer Assisted Rehabilitation Environment Networks “*Magician's Apprentice- A virtual application to evaluate and retrain arm kinematics during functional tasks*”
- 2012 Texas Health Resources: “*Fall prevention through retraining sensory weighting using a virtual environment and vibrotactile biofeedback*”
- 2010 Reynolds Annual Geriatric Update: “*The eyes' view and the feet's feel for balance control in older adults*”
- 2010 Physical Medicine Institute Research Seminar: “*Using Virtual Reality Technology to promote motor learning, balance and gait rehabilitation*”

- 2008 Conference: Virtual Researcher On Call: “Physical activity and Health”
- 2007 Conference: Modélisation en sciences cognitives: “Effects of aging and stroke on the central nervous system's ability to resolve sensory conflicts induced by a virtual environment”

CURRENT / ACTIVE FUNDED RESEARCH ACTIVITY:

Year	Funding Source, Authors and Grant Title	Award	Effort	Role
2019-2020	<u>National Science Foundation, STTR Phase I: 1843880</u> Veena Somarddy, Wijesundara M, Patterson R, Bugnariu N, “Motion Assisted Hand Exoskeleton with virtual reality for post stroke Rehabilitation (MAVHEXO)”	\$224,893	5%	Co-I
2016-2019	<u>National Science Foundation, GARDE PD 15-5342</u> Patterson R, Bugnariu N, Wijesundara M, Haghshenas-Jaryani M, Carrigan, W “Soft Robotic Glove for Cerebral Palsy Hand Rehabilitation (REHAB Glove)”	\$299,993	7.2%	Co-I
2016-2019	<u>American Osteopathic Association</u> Hensel K, Patterson R, Papa E, Bugnariu N “Effects of OMT on Gait Kinematics and Postural Control in Parkinson Disease”	\$149,952	2%	Co-I
2015-2019	<u>Health Resources & Service Administration</u> Janice Knebl, Sarah Ross, Jessica Hartos, Nicoleta Bugnariu, “Workforce Enhancement Healthy Aging and Independent Living (WE HAIL)” (U1QHP28735)	\$850,000	5%	Key Person
2017-2022	<u>NIH, K01- MH107774</u> Haylie Miller “Visuomotor integration and attention in ASD”	\$942,855	5%	Primary mentor

COMPLETED FUNDED RESEARCH ACTIVITY

Year	Funding Source, Authors, and Grant Title	Award	Effort	Role
2016-2018	<u>Institute for Healthy Aging, UNTHSC</u> Michael Salvatore, Nicoleta Bugnariu, Evan Papa “Translation of evaluating exercise-impact on aging-related motor function between rats and humans”	\$33,000	3%	Co-I
2016-	<u>Institute for Healthy Aging, UNTHSC</u>	\$25,596	2%	Co-I

2018	Rita Patterson, Evan Papa, Janice Knebl, Nicoleta Bugnariu <i>“Evaluation of a more sensitive measure for prediction of changes in dynamic postural stability and fall risk”</i>			
2015-2018	<u>National Science Foundation, (SMA-1514495)</u> Haylie Miller, Nicoleta Bugnariu <i>“Integrating new technologies to assess visual and attentional influences on movement and imitative behavior in Autism”</i>	\$52,020	5%	Co-I
2012-2017	<u>National Science Foundation, NRI- 1208623</u> Dan Popa, Nicoleta Bugnariu, Donald Butler, Frank Lewis <i>“Multi-modal sensor skin and garments for healthcare robots”</i>	\$1,054 519	7.2%	Co-PI
2013-2017	<u>Centers for Medicare and Medicaid Services</u> PI: Janice Knebl, DO <i>“STEP: Safe Transitions for Elderly Patients”</i>	\$4,540 415	10%	Key person
2013-2017	<u>Centers for Medicare and Medicaid Services</u> PI: O’Bryant S, <i>“Community-Based Primary Care for the Elderly”</i>	\$8,791 291	10%	Key person
2016	<u>International Society for Posture and Gait Research</u> Nicoleta Bugnariu, Susan Morris, Christine Assaiante, <i>“ Sensorimotor Function in Neurotypical and Atypical Development”</i>	\$8,500	2%	PI
2016-2017	<u>North Texas Specialty Physicians</u> Nicoleta Bugnariu <i>“Effects of the Motion Wellness System on balance, coordination, strength and quality of life in older adults”</i>	\$5,000	2%	PI
2017	UNTHSC, Internal, Equipment Infrastructure Patterson R, Bugnariu N, <i>“Human Movement Performance Lab Equipment Upgrade”</i>	\$65,345		Co-I
2015-2017	<u>TxMRC : Collaborative research funding program in Medical Technologies (UNTHSC, UTA, UTARI)</u> M Wijesundara, N Bugnariu, T Niacaris, R Patterson <i>“A Wearable Soft Robotic System for Continuous Passive Motion in Post-Stroke Hand Rehabilitation”</i>	\$99,373	5%	Co-PI
2014-2016	<u>Texas Physical Therapy Association</u> Evan Papa, Nicoleta Bugnariu <i>“Effects of a Novel Two-Phase Rehabilitation Program on Postural Control & Fall Incidence in Older Adults”</i>	\$2900	1%	Co-I
2013-2015	<u>UNTHSC Seed grant</u> Nicoleta Bugnariu, Haylie Miller; <i>“Visuomotor integration in Autism Spectrum Disorders”</i>	\$25,000	5%	PI
2013-2015	<u>American Orthotic and Prosthetic Association</u> Nicoleta Bugnariu, Rita M.Patterson, Gordon Stevens <i>“Functional performance evaluation of dynamic response feet”</i>	\$15,000	3%	PI
2013-2015	<u>UNTHSC Seed Grant Program</u> Mason, D. C., Patterson, R. M., and Bugnariu, N. <i>“Osteopathic Management of Leg Length Inequality with Heel Lift Therapy: Analysis of Altered Gait Kinematics”</i>	\$23,862	5%	Co-I
2012-2014	<u>TxMRC : Collaborative research funding program in Medical Technologies (UNTHSC, UTD, THR)</u> Nicoleta Bugnariu, Linda Thibodeau, Ross Roeser, Phillip	\$100,000	10%	PI

	Wilson, Elizabeth Ransom, Rita M.Patterson <i>“Good hearing, steady feet: Developing auditory devices that improve hearing and decrease the risk for falls.”</i>			
2011-2014	<u>TxMRC : Collaborative research funding program in Medical Technologies (UNTHSC, UTD)</u> Nicoleta Bugnariu, Roozbeh Jafari <i>“Fall prevention through retraining sensory weighting using a virtual environment and vibrotactile biofeedback”</i>	\$100,000	10%	PI
2011-2013	<u>TxMRC : Collaborative research funding program in Medical Technologies (UNTHSC, UTA, ATC)</u> Dan Popa, Nicoleta Bugnariu, Carolyn Garver <i>Human-Robot Interaction System for Early Diagnosis and Treatment of Childhood Autism Spectrum Disorders”</i>	\$99,960	10%	Co-PI
2013-2013	<u>APTA- Cardiopulmonary section</u> Amy Nordon-Craft, B Schwatz, N. Bugnariu <i>“Teaching Physical Therapy Students Acute Care Cardiopulmonary Competencies through Problem Based Learning and High Fidelity Human Simulations”</i>	\$5,000	2%	Co-I
2010	<u>UNTHSC SEED GRANT PROGRAM</u> Nicoleta Bugnariu, Rita Patterson, Janice Kneble, <i>“Maintaining balance in conditions of sensory conflicts: the impact of individual perceptual style on mechanisms of control”</i>	\$20,000	5%	PI
2010	<u>UNTHSC</u> Nicoleta Bugnariu, Human Movement Performance Equipment	\$425,000		PI
2009-2010	<u>Elisabeth Bruyere Research Institute</u> Nicoleta Bugnariu, François Tremblay <i>First step: Functional Interdisciplinary Rehabilitation System Tailored for Seniors to Train, Empower and Prevent Falls</i>	\$15,000	4%	PI
2008	<u>British Council Researcher Exchange Program</u> Jos Vanrenterghem, Nicoleta Bugnariu <i>Sensory-motor strategies of stepping to maintain balance</i>	£5,000	2%	Co-I
2008-2009	<u>Canada Foundation for Innovation-Leaders Opportunity Fund,</u> Daniel Benoit, Nicoleta Bugnariu and Heidi Sveistrup, <i>Neuromuscular and Rehabilitation Research Unit</i>	\$803,843	30%	Co-PI
2007-2008	<u>Faculty of Health Sciences, University of Ottawa.</u> Initiation of Research Grant, Nicoleta Bugnariu	\$10,000	2%	PI
2007-2008	<u>Senate teaching committee, University of Ottawa</u> Lucie Broseau, Nicoleta Bugnariu et al.,	\$5,000	1%	Co-I
2007	<u>Faculty of Health Sciences, University of Ottawa:</u> Start-up funds, equipment, Nicoleta Bugnariu	\$100,000		PI
2007	<u>Faculty of Health Sciences, University of Ottawa:</u> Start-up funds, operating, Nicoleta Bugnariu	\$10,000	2%	PI
2005-2006	<u>Tomlinson Postdoctoral Fellowship, McGill University</u> Nicoleta Bugnariu, <i>Virtual reality in rehabilitation</i>	\$60,000	100%	PI
2001-2003	<u>Natural Sciences and Engineering Research Council of Canada</u> Graduate Fellowship, Nicoleta Bugnariu	\$19,000	PGS B	PI
2001-2003	<u>Canadian Physiotherapy Foundation,</u> Royal Canadian Legion Fellowship in Gerontology	\$5,000	Travel	PI

	Nicoleta Bugnariu			
1999-2001	<u>Natural Sciences and Engineering Research Council of Canada</u>	\$14,000	PGS A	PI
	Graduate fellowship, Nicoleta Bugnariu			

TEACHING PHILOSOPHY

I believe that **learning is a dynamic interactive process, thus, teaching should also be**. Students bring a wealth of experience and I firmly believe that each student should be an active participant in the class. Therefore, students are expected to actively participate in the learning process, to think, reflect and react to course material. **I hold students accountable to high standards** and encourage them to ask questions and engage in finding answers critically and creatively. I recognize that students learn in different ways, through visual, auditory and kinesthetic inputs. The latter category is particularly important for the acquisition of psychomotor skills during physical therapy training. In order to **facilitate various learning styles**, I use a combination of tools including discussions, analysis of case studies, simulated patients, and assignments designed to improve communication, critical thinking, and presentation skills. Added to these techniques, I assist students to learn that **knowledge application and creation is occurring outside disciplinary boundaries**. Physical therapists are increasingly working in hybrid fields and settings from home health, schools districts, hospitals, private clinics, etc. where interactions with various health care professionals are a crucial part of the health care delivery process. Hence, **interprofessional education and practice (IPE/P) is a crucial component of training health care providers**. Therefore, I participate regularly in the IPE activities as a facilitator and member of the IPE Advisory Committee.

Teaching Responsibilities in the First Year of the Entry-level Physical Therapy Program

2011- 2017	Spring Semester	DPHT 7320	Integrated Control of Movement
	Spring Semester	DPHT 7324	Development and Geriatrics
2011-2012	Spring Semester	DPHT 7323	Applied Exercise Physiology

These are three major courses in the Physical Therapy program. I served as course director and primary instructor, covering lectures, laboratory and testing including simulated patients. Even though PT students considered these courses to be among the most difficult ones of their first year, the courses consistently received **high student evaluations with scores between 4.4/5 and 4.8/5 (2013-2016)**. The average student evaluation scores for me as an instructor range from 4.6/5 to 4.9/5. Evaluations from peers and from the center for innovative learning recognized my teaching skills, highlighting strengths such as organization, rapport with students and ability to creating a safe learning environment.

Teaching Responsibilities in the Third Year of the Entry-level Physical Therapy Program

2014-	Fall Semester	DPHT 7244	Evidence Based Practice III
	Spring Semester	DPHT 7272	Evidence Based Practice IV
2013-2014	Fall Semester	DPHT 7320	Scholarly Project I
	Spring Semester	DPHT 7323	Scholarly Project II

These courses involve supervision of individual or group- student research projects. Students submit their work for presentation at state and national conferences, and are encouraged to publish. All present at the yearly UNTHSC Research Appreciation Day. Seven of the students I supervised in the past 8 years received 11 awards for their work.

Teaching Responsibilities in the Graduate School of Biomedical Sciences

2019-	BMSC 5390.726 Sum	Special Problems: Assessments of Functional outcomes in patients with limb loss (2 cr)
2019-	BMSC 5391.726 Spg	Special Problems: Analysis of Kinematic data and advanced post-processing (1 cr)
2014-	BMSC 5150	Introduction to faculty research: Lab rotation (1 cr)
2014-	BMSC 6390.726	Special Problems: Movement Disorders (3 cr)
2014-	BMSC 6307	INTEGRATIVE BIOMEDICAL SCIENCES VII: Principles of Movement and Motor Control (4 Cr)
2014		Biomedical Issues in Autism (3 cr) for College of Education UNT Denton; department of Education Psychology

MENTORING PHYLOSOPHY:

Scientists and clinicians with diverse backgrounds and research interests mentored me. Therefore, I am committed to create similar opportunities for my mentees, establishing an environment that fosters collaborative, team-based research. Furthermore, I am committed to promote personal growth of my trainees and to provide an innovative, rigorous scientific training that facilitates their transition into independent careers in the biomedical workforce. Over the past 10 years I mentored 47 Doctoral Physical Therapy students completing terminal research projects, 4 DO medical students; 4 PhD students, post-doctoral trainees and junior faculty members. My PhD students and post-doctoral trainees have acquired tenure-track faculty positions. From 2015 to 2017, I served as scientific mentor for Dr. Papa and Dr. Miller on their KL2 awards from CTSA UTSW. Dr. Miller successfully competed for a NIH K01 grant on which I continue to serve as primary mentor. Dr. Papa accepted a position of Director of Physical Therapy Program at Idaho State University.

Postdoctoral Fellows

2013-2015	Haylie Miller, PhD	Visuomotor integration in ASD
2019 -	Sarah Moudy, PhD	Functional performance in amputees

Graduate Students Supervision:

Year	Students	Program	Project
2018-	Ophelie Puissegur	PhD	<i>Gait and balance control in trans tibial amputees</i>
2017-2019	Alvaro Saavedra, Visha Patel, Sarah Dossou Catherine Williamson	DPT	<i>Vision screenings in pre-K children</i>
2017-2019	Taylin Watson	PDRT	<i>Effect of high intensity exercise on motor function in sedentary older adults</i>
2017-2019	Mary-Catherine Wilson	PDRT	<i>Evaluating the Impact of Exercise on Aging-Related Motor Function Changes</i>
2016-2018	Alejandra Hebron	DPT & PDRT	<i>Fall prevention through retraining sensory weighting using a virtual environment and vibrotactile biofeedback</i>
2016-2018	Nicole Rodriguez, Yoshio Najera, Ryan Chan	DPT	<i>Effects of the Motion Wellness System on Balance, Coordination and strength and quality</i>

			<i>of life in older adults: a survey study</i>
2015-2017	Brenda Kinzler	DPT	<i>A Matter of Balance fall prevention program</i>
2015-2017	Jordan Fox	DPT	<i>Auditory inputs contributions to balance in young adults</i>
2015-2017	Kaitlyn Green	DPT	<i>Quantifying eye movements with a mobile eye-tracker in a community sample</i>
2015-2016	Christopher Ha	DO Honors Research	<i>Post-stroke hand rehabilitation- validation of a novel exoskeleton device</i>
2015	Bylinda Vo-Le	MSc. CRM	<i>Visuomotor integration in individuals with Autism Spectrum Disorder and Developmental Coordination Disorder</i>
2013-2018	Victoria Kowalewski	DPT/PhD	<i>Hearing loss and postural control</i>
2014-2016	David Cummings	DPT	<i>Falls preventions Home Safety assessments by FWFD</i>
2014-2015	Shayne Kelly	DO Honors Research	<i>Evidence-based practice framework for prosthetic foot prescription</i>
2014-2016	Kara Egerton	DPT	<i>Postural control in adolescents with Autism Spectrum Disorders</i>
2014-2016	Becca Petters	DPT	<i>Functional performance and quality of life in K2 and K3 transtibial amputees</i>
2014-2016	Kayla Crocker	DPT	<i>Visual attention in children with ASD</i>
2013-2015	Bradley Pair	DPT	<i>Peripheral neuropathies and balance in diabetic patients</i>
2013-2015	Bethany Grigsby	DPT	<i>Peripheral neuropathies and gait impairments in diabetic patients</i>
2013-2015	Michelle White	DPT	<i>Peer learning of geriatric competencies through Service learning activities</i>
2013-2014	Joe Hidrogo	DO , Honors research	<i>Comparison of amputee gait with K2 vs K3 prosthesis</i>
2013-2014	Francis Behan	DO , Honors research	<i>Balance retraining with vibrotactile noise in diabetic patients</i>
2013-2014	Meena Krishnan	DPT	<i>Current use of Virtual Environments in assessing and treatment of Autism</i>
2013-2014	Gemma Rose	DPT	<i>Ischemic induced sensory neuropathies and balance</i>
2013	Adrian Villareal	M. Sc. CRM	<i>Auditory impairments in older adults</i>
2012-2013	Laura Lawhon Matt Walden	DPT	<i>Effect of AFO on impairments, function and quality of life in patients post-stroke</i>
2011-2013	David Cummings	M.Sc PH	<i>Service Learning Activities</i>
2009	Élise Gervais Julie Ruest	M.Sc. PT	<i>Physical therapy for children with autism</i>

2008-2009	Valérie Emond	M.Sc. PT	<i>Stepping mechanisms to maintain balance and prevent falls</i>
2007-2009	Alexandre Lagacé Louis Philippe Bergeroin	M.Sc. PT	<i>Stability limits : static and dynamic concept, assessment tools and clinical implications</i>

Graduate advisory committees: evaluation of proposals and dissertations

Program	Students	Proposal	Thesis
PhD	Austin Brown	2019	
MSc CRM	Savanah Hancock	2019	
PhD	Alexandra Marciante	2017	2019
MSc CRM	Russell Donevant	2016	2016
PhD	Maureen Purcell	2015	
PhD	Jessica Juarez	2015	2018
DPT/PhD	Victoria Kowalewski	2014	2018
DO/PhD	Addison Wood	2013	2017
PhD	Issura Ranatunga	2012	2015
M.SC/DO	Sebastian Bens	2012	2014
MSc. HK	Christine Lefebvre	2007	2008
MSc. Neuroscience	David White		2008
PhD	Ashleigh Purnell	2008	2013

PROFESSIONAL SERVICE & AWARDS

Service to Scientific and Professional Organizations:

Research Councils and Funding Agencies:

2019-	Reviewer fellowships, NIH Musculoskeletal and Oral Sciences, Imaging, Surgery, and Informatics F10B Study Section
2018-2021	Reviewer Discovery Grants, Biological Systems and Functions Evaluation Group, Natural Sciences and Engineering Research Council (NSERC), Canada
2017-	Reviewer grants, NIH Brain Disorders and Clinical Neuroscience Study Section
2017-	Reviewer grants, Canada Foundation for Innovation and FRSQ
2016-	Reviewer grants, NIH Motor Function Speech and Rehabilitation Study Section
2014-	Reviewer grants, Orthotic and Prosthetic Education and Research Foundation
2014-	Reviewer grants, National Science Foundation
2012-	Reviewer grants, American Heart Association Reviewer, Bioengineering Committee
2012-	Reviewer NIH Muscle Physiology & Musculoskeletal Rehabilitation Study Section
2011-	Reviewer grants, NIH Musculoskeletal Rehabilitation Sciences Study Section
2009-	Reviewer grants, Natural Sciences and Engineering Research Council Canada
2009-	Reviewer grants, Workers Compensation Board, Manitoba, Canada
2007-	Reviewer grants, Canadian Institute of Health Research

Professional Organizations

2016- On-site Reviewer, Commission on Accreditation for Physical Therapy Education (CAPTE)
 2016- Elected Treasurer, International Society for Posture and Gait Research
 2015-2017 Chair, Awards Committee, ISPGR
 2014- Board Member, International Society for Posture and Gait Research
 1999- Member, International Society for Posture and Gait Research
 2010- Member, American Physical Therapy Association, 520060
 2000- Member, Society for Neuroscience
 1999- Member Canadian Physiotherapy Association

Selected Scientific Journals: Manuscript Reviewer

2019- Frontiers in Neurology
 2018- Journal of Psychology of Sport & Exercise
 2017- Cyberpsychology, Behavior, and Social Networking
 2016- Experimental Brain Research
 2015- Journal of Motor Behavior
 2014- Prosthetic & Orthotics International Journal
 2013- Neuroscience EES
 2012- Journal of NeuroEngineering and Rehabilitation
 2010- Journal of Gait & Posture

Community Service: Consultative and Advisory Positions Held:

2019- Texas Health Resources, Board Member, Community Impact Council
 2019- Board Advisor, Sister Cities International
 2018- Member, Leadership Fort Worth
 2012-2016 Chair of Falls Prevention Task Force, Ft. Worth Safe Communities
 2013- 2015 Member, United Way Health Council, Fort Worth, Texas
 2010, 2011, 2013 Judge, Research Appreciation Day
 2008- 2009 Judge, Canada Wide Science Fair
 2008- 2009 Member, Ottawa Region Physiotherapy Leadership Group
 1996- 2009 Leader and chief coordinator in a Scout Organization A.E.S.Q, Quebec, Canada.

Service to the University/School/Department:

University

2019- Chair, Steering Committee on Academic Excellence
 2018 Chair, Search Committee Vice President & Chief of Staff Provost Office
 2017- Member, President's Finance Council
 2016- Member, Council of Deans, Council on Educational Support
 2016- Member, IPE Advisory Committee
 2015-2016 Member, SACS 5 year Interim Report - Academic Affairs Committee
 2015- 2016 Member, GSBS Traditional PhD Admission committee
 2013-2016 Member, Institutional Review Board
 2010- Member, Research Advisory Council, UNTHSC
 2012-2014 Member, Intellectual Property Advisory Committee, UNTHSC
 2012-2013 Member, Faculty Grievance Committee, UNTHSC
 2012 Member, Search Committee for VP Research and Dean of SHP
 2008- 2009 Member, Inter-professional Education Steering Committee, Academic Health Council, Ottawa- Champlain Region, University of Ottawa
 2007- 2009 Member Admission Committee Physiotherapy Program, U Ottawa

2007-2009 Co-founding director of the Neuromuscular and Rehabilitation Research Unit
2007-2009 Member, Faculty of Health Sciences Council, University of Ottawa

School of Health Professions

2016 Chair of the Search Committee for Physician Assistant Program Director
2014-2016 Member, Physician Assistant Studies Curriculum Committee
2013-2016 Member, School of Health Professions Promotion and Tenure Committee

Department of Physical Therapy

2013- Graduate Advisor, Structural Anatomy and Rehabilitation Sciences Program
2013-2015 Member, DPT Scholarships Review Committee
2012- 2015 Director/Chair, PT Research Committee
2010-2014 Scheduling Coordinator
2010-2012 Chair, Faculty Search Committee

Honors and Awards:

2019 100 Best & Brightest Executive MBAs: Class of 2019; Poet & Quants for Executives. <https://poetsandquantsforexecs.com/2019/06/29/2019-best-embas-nicoleta-bugnariu-texas-christian-university-neeley/>
2015 Exemplary Teaching Award, School of Health Professions
2015 Social Responsibility Award, Global Health Special Interest Group, APTA
2014 Thranhardt Lecture Award, American Orthotics & Prosthetics Association
2013 HealthCare Hero, Fort Worth Business Press & Healthpoint Biotherapeutics
2008 Leaders Opportunity Fund Award, Canada Foundation for Innovation
2001-2003 Royal Canadian Legion Fellowship in Gerontology
1999-2003 National Excellence Scholarship, University of Ottawa
2000 Strategic Areas of Development Award, University of Ottawa
1999 Gold Medal for highest standing in the Physiotherapy, University of Ottawa
1999 Outstanding Academic and Clinical Performance Award, Canadian Physiotherapy Association
1996-1998 Merit scholarship & Dean's honor list, University of Ottawa

PROFESSIONAL ACTIVITIES

Continuing Education Workshops Organized:

November 17-21, 2017 "Sensorimotor Function in Neurotypical and Atypical Development" Training
School sponsored by International Society for Posture and Gait Research

Selected Professional Development Attended

2019 World Congress of International Society of Posture and Gait Research
2019 World Confederation for Physical Therapy Congress
2019 Combined Sections Meeting, American Physical Therapy Association
2018 Combined Sections Meeting, American Physical Therapy Association
2017 World Congress of International Society of Posture and Gait Research
2017 International Conference on Virtual Rehabilitation

2017 Combined Sections Meeting, American Physical Therapy Association
 2016 Sensorimotor Function in Neurotypical and Atypical Development
 2016 Drive the difference: Leading Innovation in Patient Safety
 2016 Leadership Summit
 2016 CAPTE On-site reviewer training
 2016 Combined Sections Meeting, American Physical Therapy Association
 2015 Patient Safety Summit
 2015 World Congress of International Society of Posture and Gait Research
 2015 International Symposium on Prosthetics and Orthotics
 2015 Interprofessional Education Conference
 2015 Combined Sections Meeting, American Physical Therapy Association
 2014 American Orthotics and Prosthetics National Assembly
 2014 World Congress of Biomechanics
 2014 World Congress of International Society of Posture and Gait Research
 2014 Workshop “Hearing Evaluation and Management for Geriatric Patients”.
 2014 Combined Sections Meeting, American Physical Therapy Association
 2013 International Society of Posture & Gait Research & Gait and Mental Function World Congress
 2012 Society for Neuroscience Annual Meeting
 2012 World Joint Congress International Society of Posture & Gait Research and Mental Function
 2012 Webinar, Geriatric Balance and Dizziness, Mobility Research
 2011 Management Development Program, UNTHSC
 2011 Combined Sections Meeting, American Physical Therapy Association
 2010 Rehabilitation of Amputees from Injury to Recovery, MOTEK Medical Netherlands
 2009 On-line training course “Analysis toolkit”, Vicon UK University
 2008 Workshop: “Teaching for Critical Thinking”, Cyber Learning Center, Ottawa.
 2007 Innovations in Balance and Locomotor Rehabilitation 2007, The translation from
 Fundamental Science to Clinical Applications”, McGill, Montreal
 2007 Educational/training course: “Summer Publication and Grant Writing workshop”,
 McMaster University & Canadian Institute for Health Research.
 2007 Workshop: Managing academic career, Centre for Academic Leadership, University of Ottawa
 2006 Workshop: “Virtual reality and Physical Rehabilitation”, University of Haifa,
 University of Ottawa and McGill University