

MANUEL ENRIQUE HERNANDEZ

CURRICULUM VITAE
Last updated May 2017

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EDUCATION

Ph.D., Biomedical Engineering, University of Michigan, Ann Arbor, 2012

Dissertation: Biomechanics of leaning and downward reaching tasks in young and older women

M.S., Biomedical Engineering (Biomechanics Concentration), University of Michigan, Ann Arbor, 2005

B.S., Mechanical Engineering, Cornell University, 2003

ACADEMIC APPOINTMENTS

University of Illinois at Urbana-Champaign, Urbana-Champaign, IL *2017-Present*
Affiliate Faculty, Department of Psychology
Inaugural Faculty, Carle Illinois College of Medicine

University of Illinois at Urbana-Champaign, Urbana-Champaign, IL *2014-Present*
Assistant Professor, Department of Kinesiology and Community Health
Affiliate Faculty, Beckman Institute for Advanced Science and Technology
Affiliate Faculty, Center on Health, Aging and Disability
Faculty, Neuroscience Program

University of California, San Diego, La Jolla, CA *2012-2014*
Postdoctoral Scholar, Institute for Neural Computation

RESEARCH INTERESTS

Investigation of risk factors for injury or disability during the performance of goal-directed movements • Exploration of speed-accuracy tradeoffs in the control of whole body movements
• Age-related and disease-related changes in postural control • Behavioral and neural mechanisms underlying postural and gait dysfunction in older adults with and without neurological disorders • Non-linear dynamical analysis of short and noisy time series data

TEACHING INTERESTS

Biomechanics of human movement • Fall prevention • Neuromechanics • Neurorehabilitation
Occupational and rehabilitation biomechanics • Interdisciplinary group projects focused on critical thinking in problem identification and involving open-ended problems

PEER-REVIEWED JOURNAL PUBLICATIONS

1. Klaren RE, Balto JM, Sandroff BM, Chaparro G, **Hernandez ME**, Motl RW. Preliminary evidence for the effects of aging and multiple sclerosis on cognitive performance: an analysis based on effect size estimates. *Experimental Aging Research* 2016; (In press).
2. Motl RW, Chaparro G, **Hernandez ME**, Balto JM, Sandroff BM. Physical function in older adults with multiple sclerosis: an application of the short physical performance battery. *Journal of Geriatric Physical Therapy* 2016; doi:10.1519/JPT.000000000000115.
3. **Hernandez ME**, Holtzer R, Chaparro G, Jean K, Balto JM, Sandroff BM, Izzetoglu M, Motl RW. Brain activation changes during locomotion in middle-aged to older adults with multiple sclerosis. *Journal of Neurological Sciences* 2016; 370:277-283. doi:10.1016/j.jns.2016.10.002.
4. Moon J, Sung J, An R, **Hernandez ME**, Sosnoff JJ. Gait Variability in People with Neurological Disorders: A Systematic Review and Meta-analysis. *Human Movement Science* 2016; 47:197-208. doi:10.1016/j.humov.2016.03.010.
5. **Hernandez ME**, Snider J, Stevenson C, Cauwenberghs G, Poizner H. A correlation-based framework for evaluating postural control stochastic dynamics. *IEEE Transactions on Neural Systems and Rehabilitation Engineering* 2016; 24, 551-61. doi:10.1109/TNSRE.2015.2436344.
6. Lainscsek C, **Hernandez ME**, Poizner H, Sejnowski T. Delay Differential Analysis of Electroencephalographic Data. *Neural Computation* 2015; 27(3):615-27. doi:10.1162/NECO_a_00656.
7. Lainscsek C, **Hernandez ME**, Weyhenmeyer J, Sejnowski T, Poizner H. Non-linear dynamical analysis of EEG time series distinguishes patients with Parkinson's disease from healthy individuals. *Frontiers in Neurology* 2013; doi:10.3389/fneur.2013.00200.
8. Lainscsek C, Weyhenmeyer J, **Hernandez ME**, Poizner H, Sejnowski T. Non-linear dynamical classification of short time series of the Rössler system in high noise regimes. *Frontiers in Neurology* 2013; doi:10.3389/fneur.2013.00182.
9. Lukos JR, Snider J, **Hernandez ME**, Tunik E, Hillyard S, Poizner H. Parkinson's disease patients show impaired corrective response control and eye-hand coupling when reaching to virtual objects. *Neuroscience* 2013; 254:205-21. doi:10.1016/j.neuroscience.2013.09.026.
10. **Hernandez ME**, Ashton-Miller JA, Alexander NB. Age-related differences in maintenance of balance during forward reach to the floor. *The Journals of Gerontology: Biological Sciences and Medical Sciences* 2013; 68(8):960-967.
11. **Hernandez ME**, Ashton-Miller JA, Alexander NB. The effect of age, movement direction, and target size on the maximum speed of targeted COP movements in healthy women. *Human Movement Science* 2012; 31:1213-1223.

12. **Hernandez ME**, Ashton-Miller JA, Alexander NB. Age-related changes in speed and accuracy during rapid targeted center of pressure movements near the posterior limit of the base of support. *Clinical Biomechanics* 2012; 27(9):910-916.
13. **Hernandez ME**, Goldberg A, Alexander NB. Decreased muscle strength relates to self-reported stooping, crouching, or kneeling difficulty in older adults. *Physical Therapy* 2010; 90:67-74.
14. **Hernandez ME**, Murphy SL, Alexander NB. Characteristics of older adults with self-reported stooping, crouching, or kneeling difficulty. *The Journals of Gerontology: Biological Sciences and Medical Sciences* 2008; 63A(7):70-74.
15. Goldberg A, **Hernandez ME**, Alexander NB. Trunk repositioning errors are increased in balance-impaired older adults. *The Journals of Gerontology: Biological Sciences and Medical Sciences* 2005; 60A(10):1310-1314.

PEER-REVIEWED FULL LENGTH CONFERENCE PROCEEDINGS

16. Widdowson C, Ganhotra J, Faizal M, Wilko M, Parikh S, Adhami Z, **Hernandez ME**. Virtual reality applications in assessing the effect of anxiety on sensorimotor integration in human postural control. *Engineering in Medicine and Biology Society (EMBC), Proceedings of the 2016 38th Annual International Conference of the IEEE*; doi:10.1109/EMBC.2016.7590633.
17. Weyhenmeyer J, **Hernandez ME**, Lainscsek C, Sejnowski T, Poizner H. Muscle Artifacts in Single Trial EEG data Distinguish Patients with Parkinson's Disease from Healthy Individuals. *Engineering in Medicine and Biology Society (EMBC), Proceedings of the 2014 36th Annual International Conference of the IEEE*; doi:10.1109/EMBC.2014.6944326.
18. Lainscsek C, **Hernandez ME**, Poizner H, Sejnowski T. Multivariate spectral analysis of electroencephalography data. *Neural Engineering (NER), Proceedings of the 2013 6th International IEEE/EMBS Conference on*; doi:10.1109/NER.2013.6696142.
19. **Hernandez ME**, Stevenson C, Snider J, Poizner H. Center of pressure velocity autocorrelation as a new measure of postural control during quiet stance. *Neural Engineering (NER), Proceedings of the 2013 6th International IEEE/EMBS Conference on*; doi:10.1109/NER.2013.6696172.
20. **Hernandez ME**, Xiang X, Park YE, Goenawan I, Yawson F, Lowe E. Implementation of an Integrated Product Development Competition in a Rural Dominican Community: Lessons Learned. *Proceedings of the 118th Annual Meeting of the American Society for Engineering Education*, 2011, AC 2011-1102.

PUBLICATIONS IN REVISION, IN REVIEW OR IN PREPARATION

21. Chaparro G, Balto JM, Sandroff BM, Holtzer R, Izzetoglu M, Motl RW, **Hernandez ME**. Frontal brain activation changes due to dual-tasking under partial body weight support

conditions in older adults with multiple sclerosis. *Journal of NeuroEngineering and Rehabilitation*; (In revision).

22. **Hernandez ME**, Wajda D, Sosnoff JJ. Effect of attention and vision on correlation-based measures of postural sway stochastic dynamics in older adults. *Biomedical engineering*; (In revision).
23. Weyhenmeyer J, **Hernandez ME**, Lainscsek C, Sejnowski T, Poizner H. Multimodal classification with delay differential analysis: perspectives from Parkinson's Disease. *Frontiers in Human Neuroscience*; (In revision).
24. **Hernandez ME**, Lukos JR, Tunik E, Hillyard S, Poizner H, Snider J. Neural dynamics underlying motor adaptation to object perturbations in Parkinson's disease. *Neuroscience*; (In preparation).
25. Sandroff BM, **Hernandez ME**, Holtzer R, Izzetoglu M, Motl RW. Patterns of prefrontal cortex activation during performance of an executive function task in persons with multiple sclerosis using functional near-infrared spectroscopy (fNIRS). *Brain Imaging and Behavior*; (In preparation).
26. **Hernandez ME**, Chaparro G, O'Donnell E, Holtzer R, Izzetoglu M, Motl R. Brain activation changes during balance and attention demanding tasks in older adults with multiple sclerosis. *Motor Control*; (In preparation).
27. **Hernandez ME**, Chaparro G, Holtzer R, Izzetoglu M, Motl R. Cognitive control of tandem walking in middle-aged to older adults with multiple sclerosis. *Gait & Posture*; (In preparation).
28. **Hernandez ME**, Wajda D, Sosnoff JJ. Effect of attention and vision on correlation-based measures of postural sway stochastic dynamics in persons with multiple sclerosis. *Clinical biomechanics*; (In preparation).

RESEARCH SUPPORT

Beckman Institute Postdoctoral Fellows Program

Co-sponsor, "Physical activity and sedentary behavior and brain health in older adults with multiple sclerosis"

Pending Amount: \$108,000 Total Costs

Percent effort: no support

Jump Applied Research for Community Health through Engineering and Simulation

Principal Investigator, "Simulation of postural dysfunction in Parkinson's disease"

Pending Amount: \$49,976 Total Costs

Percent effort: 5.5%

University of Illinois Campus Research Board

Principal Investigator, “The effect of fall-related anxiety on the cognitive control of gait in older women with osteoarthritis”

Amount: \$24,541 Total Costs

Percent effort: no support

University of Illinois Office of the Vice Chancellor for Research Equipment Funding

Principal Investigator, “Equitest balance assessment system for assessment of fall risk in aging and disabled populations”

Amount: \$128,000 Total Costs

Percent effort: no support

National Institutes of Health NRSA Individual Pre-doctoral Fellowship, F31 AG024689

Principal Investigator, “Training in trunk control biomechanics in older adults”

2005-2010

Alexander, NB, Ashton-Miller, JA (co-mentors)

Amount: \$207,665 Total Costs

Percent effort: 100%

HONORS & AWARDS

University of Michigan Rackham Conference Travel Grant (2009-2011)

National Institute of Health Individual Pre-doctoral Research Fellowship (2005-2010)

Engineering Graduate Symposium Oral Presentation 1st Place Winner (2008)

Epeians – Engineering Leadership Honor Society (2008)

Distinguished Leadership Award (2007)

Student Legacy Award Honorable Mention (2007)

Ginsberg Center Award for Community Service & Social Action’s Outstanding Community Impact Award (2006)

NSF Graduate Research Fellowship Program Honorable Mention (2004)

College of Engineering MLK Spirit Award Recipient (2004)

GEM M.S. Engineering Fellowship (2004)

Biomedical Engineering Departmental Fellowship (2003)

Pi Tau Sigma - Mechanical Engineering Honor Society (2003)

Eaton Minority Engineering Scholar (2000-2002)

Ford Motor Company Scholarship Recipient (1999-2003)

Robert C. Byrd Scholarship Recipient (1999-2003)

TEACHING EXPERIENCE

University of Illinois at Urbana-Champaign, Champaign, IL

Spring 2017

Instructor, KIN 199: Undergraduate Open Seminar: Reimagining the future of brain injury treatment.

University of Illinois at Urbana-Champaign, Champaign, IL

Spring 2017

Instructor, KIN 199: Undergraduate Open Seminar: Baby boomers: A challenge to public health.

University of Illinois at Urbana-Champaign, Champaign, IL *Spring 2016*
Instructor, KIN 494: Special Topics: Occupational & Rehabilitation Biomechanics.

University of Illinois at Urbana-Champaign, Champaign, IL *Spring 2015-16*
Instructor, KIN 494: Special Topics: Neuromechanics.

University of Illinois at Urbana-Champaign, Champaign, IL *Fall 2014-16*
Instructor, KIN 355: Biomechanics of Human Movement.

University of Illinois at Urbana-Champaign, Champaign, IL *2014*
Guest lecture, ME/BIOE 481: Whole Body Musculoskeletal Biomechanics Class
“Biomechanics of leaning and reaching movements”

Self-employed, San Diego, CA *2010-2012*
Tutor, undergraduate engineering coursework
Tutored undergraduate engineering student in statics, electrical circuits, electronics, applied mathematics for engineers and scientists, and physics.

University of Michigan, Ann Arbor, MI *2007*
Debrief Facilitator, Global Intercultural Experience for Undergraduates Program
Facilitated small group discussion on cultural misunderstandings and identity

University of Michigan, Ann Arbor, MI *2004-2006*
Team facilitator, ENGR 490: Engineering for Community Class
Defined objectives and benchmarks for pilot course in collaboration with faculty, staff, and students. Facilitated small project teams with problem identification, brainstorming, and project implementation. Developed lesson plans and prepared materials for single-class sessions.

University of Michigan, Ann Arbor, MI *2005*
Guest lecture, EHS 570: Water Quality Management Practices Class
“Household Water Purification in Rural Dominican Republic”

PROFESSIONAL DEVELOPMENT

Teaching Computation in the Sciences Using MATLAB, Carleton, MN *2016*
Participant, Inaugural MATLAB computation workshop
Developed activities for teaching computation in the sciences, developed resources for instructors to teach computation to students without any prior background on programming, and learned best practices for establishing transdisciplinary education.

University of Illinois at Urbana-Champaign, Champaign, IL *2014-2016*
Participant, Center for Innovation in Teaching & Learning, Junior Faculty Seminar Series

Learned about the use of informal early feedback, writing effective i>clicker questions, active learning, teaching philosophy statement preparation, backward design, universal design, and improving testing and grading strategies.

University of California, San Diego, La Jolla, CA *2014*
Participant, Center for Teaching Development Teaching and Learning Weekly Workshops
Learned about learning outcomes, alternatives to lecture, peer instruction, and assessments that support learning.

Institute on Teaching & Mentoring, Tampa, FL *2010*
Participant, 17th Annual Compact for Faculty Diversity
Sharpened strategies to enhance the postdoctoral experience and navigating the first few years of a tenure-track academic position, so as to be better prepared for teaching, mentoring, and research as a member of the professoriate.

Stanford University, Palo Alto, CA *2009-2010*
Participant, OpenSim Developers Jamboree
Attended workshops designed to enhance my skills with OpenSim, focused on the OpenSim application programming interface (API) and integration of OpenSim models within MATLAB, conceptual overview of OpenSim, and generation of biomechanical models.

Stanford University, Palo Alto, CA *2008*
Participant, SimTK 1.5 Workshop
Attended workshop that provided the framework for mathematical modeling using the open-source toolkit, SimTK.

University of Michigan, Ann Arbor, MI *2007*
Participant, Preparing Future Faculty Conference
Learned about the structure of higher education institutions and how to effectively start, maintain, and mentor in a research laboratory.

University of Michigan, Ann Arbor, MI *2007*
Student, ENGIN 580: Teaching Engineering
Participated in academic course to better prepare for an academic career and to sharpen knowledge on learning theories and teaching issues. Prepared syllabus, brief lecture, design project, and exam for an undergraduate biomechanics course.

University of Michigan, Ann Arbor, MI *2004*
Participant, Training for Multicultural Classroom Facilitation
Participated in training course emphasizing teaching strategies to establish an open and inviting classroom, by exploring issues in multicultural teaching, engaging students in critical thinking, and strategies that anticipate and respond to difficult discussions.

University of Michigan, Ann Arbor, MI *2004*
Participant, CRLT Seminar on College Teaching
Participated in selected Center for Research on Learning and Teaching (CRLT) seminars to develop teaching skills on fostering and evaluating learning using concept maps and lecturing for learning.

RESEARCH EXPERIENCE

POST-DOCTORAL:

University of Illinois at Urbana-Champaign, Urbana, IL *2014-Present*
Director, Mobility and Fall Prevention Research Laboratory, Department of Kinesiology and Community Health, College of Applied Health Sciences

University of California, San Diego, San Diego, CA *2012-2014*
Postdoctoral Scholar, Institute for Neural Computation, Poizner Lab
Assessed the effect of Parkinson's disease and dopaminergic therapy on motor adaptation to grasping tasks. Utilized delay differential equation models for classifying Parkinson's disease patients vs. healthy age-matched control subjects using brief resting state electroencephalographic data. Examined the role of deep brain stimulation of the subthalamic nucleus (STN DBS) in reaching to kinesthetically provided targets in patients with Parkinson's disease.

PRE-DOCTORAL:

University of Michigan, Ann Arbor, Ann Arbor, MI *2003-2012*
Research Assistant, Mobility Research Center, Department of Biomedical Engineering
Designed novel biomechanical study of the effects of age on whole body movements utilizing force plate, motion-capture, isokinetic dynamometer, and EMG data. Developed custom MATLAB code for the simulation and analysis of rigid body dynamics.

University of California, Berkeley, Berkeley, CA *2002*
Research Assistant (SUPERB fellow), Department of Bioengineering
Investigated flow characteristics of water-sucrose solution in rectangular microchannels.
Identified channel entry dynamics through digital capture techniques.

Cornell University, Ithaca, NY *2002-2003*
Independent Design Project, Department of Mechanical and Aerospace Engineering
Developed final design of fixture for use in quantitative comparisons of distal radius surgical plates. Fabricated custom-made components used in test fixture and coordinated purchase of necessary hardware.

Cornell University, Ithaca, NY *2000-2001*
Research Assistant, Department of Material Science and Engineering
Investigated properties of avian keratin in rachis and barb samples through x-ray diffraction.
Analyzed crystal diffraction in MATLAB and developed test sequence on turkey rachis.

Cornell University, Ithaca, NY 1999-2000
Laboratory Assistant, Ecology and Evolutionary Biology Department
Launched a database for the inventory of supplies in Venezuelan Research Outpost. Conducted Chlorophyll Tests with fluorometers and calculated organic matter tabulations in excel.

University of Miami, Miami, FL 1998
Research Assistant, Department of Pediatric Cardiology, Jackson Memorial Hospital (JMH)
Initiated a study on the conditions of post-operative cardiac transplant pediatric patients in JMH. Researched the effect of immunosuppressants such as cyclosporin and tacrolimus on the heart.

MENTORING EXPERIENCE AS PRIMARY ADVISOR

University of Illinois at Urbana-Champaign, Urbana, IL 2014-Present
Graduate Students, Kinesiology and Community Health Doctoral Program
Gioella Chaparro: *The effects of dual-task walking under partial weight bearing conditions in individuals with Parkinson's disease* (2014-Present).

University of Illinois at Urbana-Champaign, Urbana, IL 2015-Present
Research Volunteer, Mobility and Fall Prevention Research Laboratory
Saurin Parikh: *Virtual reality applications in assessing the effect of anxiety on sensorimotor integration in human postural control* (2015-2016).

University of Illinois at Urbana-Champaign, Urbana, IL 2014-Present
Undergraduate Students, Bioengineering Bachelor of Science Program
Rachel Walker: *The effect of body weight support on the postural control of older adults during self-paced gait* (2014-2016).

University of Illinois at Urbana-Champaign, Urbana, IL 2017-Present
Undergraduate Students, Biology Bachelor of Science Program
Marie-Laure Mbi: *Motor cortical potentials during whole body movements* (2017-Present).

University of Illinois at Urbana-Champaign, Urbana, IL 2015-Present
Undergraduate Students, Chemical Engineering Bachelor of Science Program
Zain Adhami: *Postural control stability within quiet standing* (2015-2016).

University of Illinois at Urbana-Champaign, Urbana, IL 2015-Present
Undergraduate Students, Chemistry Bachelor of Science Program
Marissa Wilko: *Stochastic postural control dynamics of older adults* (2015-Present).

University of Illinois at Urbana-Champaign, Urbana, IL 2015-Present
Undergraduate Students, Computer Science Bachelor of Science Program
Mohammed Faizal: *Multivariate data acquisition and synchronization in Python* (2015-2016).

University of Illinois at Urbana-Champaign, Urbana, IL 2015-Present

Undergraduate Students, Integrative Biology Bachelor of Science Program
Larisa Piton: *The effect of attention in the gait of older adults with Parkinson's disease* (2015-2016).

University of Illinois at Urbana-Champaign, Urbana, IL 2015-Present
Undergraduate Students, Integrative Health Bachelor of Science Program
Lia Godinez: *The effect of body weight support on gait characteristics of older adults* (2015-Present).

University of Illinois at Urbana-Champaign, Urbana, IL 2016-Present
Undergraduate Students, Interdisciplinary Health Science Bachelor of Science Program
Min Chen: *The effect of central mechanisms mediating fall risks in older adults* (2016-Present).
Cecilia Kattan: *Dynamic postural control changes with Tai chi practice* (2017-Present).

University of Illinois at Urbana-Champaign, Urbana, IL 2016-Present
Undergraduate Students, General Studies Bachelor of Science Program
Claire Pavlis: *Gait dynamics in older with neurological disorders* (2016-Present).
Abel Varghese: *Central mechanisms mediating fall risk in older adults* (2016-Present).

University of Illinois at Urbana-Champaign, Urbana, IL 2014-Present
Undergraduate Students, Kinesiology and Community Health Bachelor of Science Program
William Stein: *The effects of dual-task walking under partial weight bearing conditions in older adults* (2014-2015).
Erin O'Donnell: *Biomechanical mechanisms underlying postural dysfunction in older adults* (2015-Present).
Marisa Ascencio: *The effect of attention in the gait of older adults* (2015-2016).
Dena Kontos: *The effect of anxiety on postural control in older adults* (2016-Present).
Palack Mahajan: *Central mechanisms mediating fall risk in older adults* (2016).
Ryan Prais: *Dynamic postural control changes with Tai chi practice* (2017- Present).

University of Illinois at Urbana-Champaign, Urbana, IL 2016-Present
Undergraduate Students, Materials Science and Engineering Bachelor of Science Program
Nikhil Krishnan: *Central mechanisms mediating fall risk in older adults* (2016-Present).

University of Illinois at Urbana-Champaign, Urbana, IL 2015-Present
Undergraduate Students, Molecular and Cellular Biology Bachelor of Science Program
Veronica Passarelli: *The effect of attention in the gait of older adults with Multiple Sclerosis* (2015-2016).
Despina Hadjiagapiou: *Neural mechanisms underlying postural dysfunction in older adults with neurological disorders* (2015-2016).
Delaney Durst: *Central mechanisms mediating fall risk in older adults* (2016-Present).
Mae Leef: *Gait dynamics in older with neurological disorders* (2016-Present).
Kelley Tran: *Gait dynamics in older with neurological disorders* (2017-Present).
Devashish Singh: *Gait dynamics in older with neurological disorders* (2017-Present).
Madeline McDevitt: *Motor cortical potentials during whole body movements* (2017-Present).
Rongyi Sun: *Central mechanisms mediating fall risk in older adults* (2017-Present).

Jessica Wcislo: *Behavioral biomarkers of dyskinesia in Parkinson's disease* (2017-Present).

University of Illinois at Urbana-Champaign, Urbana, IL 2015-Present
Undergraduate Students, Speech and Hearing Science Bachelor of Science Program
Heather Lalla: *The effect of attention in the gait of older adults with Parkinson's disease* (2015).

University of Illinois at Urbana-Champaign, Urbana, IL 2016-Present
Undergraduate Students, Psychology Bachelor of Science Program
Alison Chan: *The effect of attention in the gait of older adults with Parkinson's disease* (2016).
Joseph Nangachiveetil: *The effect of central mechanisms mediating fall risks in older adults* (2016-Present).
Nancy Ramirez-Blancas: *Motor cortical potentials during whole body movements* (2017).

University of Illinois at Urbana-Champaign, Urbana, IL 2014-Present
James Scholar Project,
Mary Heaton: *Fall risk in older amputee population* (2014).
Dana Jorgenson: *The role of exercise on gait characteristics of older adults with osteoarthritis* (2015).
Alli Mack: *Balance and gait function in older adults with multiple sclerosis* (2015).
Margret Gruben: *The biomechanical adjustments of prosthetics* (2016).
Kelsey Thompson: *A biomechanical review of anterior cruciate ligament injuries in female soccer players* (2016).

University of Illinois at Urbana-Champaign, Urbana, IL 2015-Present
Summer Research Opportunity Program, Recipient of Ave Alvarado Award, Best Poster Presentation-Honorable Mention
Kharine Jean: *The effect of walking on cognitive performance in Multiple Sclerosis: Insight into compensatory cortical activation* (2015).

University of California, San Diego, CA 2013-2014
Poizner Lab
Cory Stevenson: *Behavioral and neural mechanisms underlying postural dysfunction in PD* (2013-2014).
Raj Panchal: *Behavioral and neural mechanisms underlying balance control* (2013).

University of Michigan, Ann Arbor, MI 2005-2008
Undergraduate Research Opportunity Program
Lindsay Dubbs: *Studies of mobility assessment and enhancement in older adults* (2005-2006).
Michael Black: *Lifting characteristics of older adults with self-reported difficulty* (2006-2007).
Pooja Desai: *Learning effects in distal postural control tasks* (2006-2008).
Victoria Washington: *Biomechanics of older adults with stooping, crouching, or kneeling difficulty* (2007-2008).

University of Michigan, Ann Arbor, MI 2006-2007
Mobility Research Center Research Assistant

Radhika Patel: *The role of postural and configuration control on downward reach and pick-up movements in older adults* (2006).

Adam Biddle: *Development of biomechanical data analysis methods in MATLAB* (2007).

PARTICIPATION IN EXAMINING COMMITTEE

University of Illinois at Urbana-Champaign, Urbana, IL *2016-Present*
Graduate Students, Kinesiology and Community Health Doctoral Program
Douglas A. Wajda, Ph.D., *Cognitive-Motor Interaction: Influence of the individual, the task and the environment*, doctoral committee (2016).

University of Illinois at Urbana-Champaign, Urbana, IL *2016-Present*
Graduate Students, Linguistics Doctoral Program
John Jang, *Using Force Plates as a Way to Objectively Measure Listening Comprehension Difficulty*, prelim committee (2016).

INDUSTRY EXPERIENCE

Medtronic Corporation, Neurological Division, Minneapolis, MN *2003-2004*
Summer Associate, Neurological Lead Development Group
Developed a column buckle test method as a means to characterize lead distal tip behavior. Validated statistical model used for tolerance analysis of neurological stimulator connections. Standardized test protocols for use in characterization and design verification testing of leads and extensions. Designed and tested interior surface modifications to an existing anchor for concept evaluation.

Eaton Corporation (Tech Center), Pittsburgh, PA *2001*
EMESP intern, Molded Case Circuit Breaker (MCCB) Group
Developed comprehensive tolerance analysis tool for mechanism in EF breaker. Executed development testing on new product line and coordinated construction of samples.

Eaton Corporation (SEO), Beverly, MA *2000*
EMESP intern, Mechanical Engineering group
Designed Excel models to determine pressure gradient across components of a SDS Gas Box Module (GBM). Drafted DCO release drawings in AutoCAD 2000 and utilized Pro-E to visualize fluid flow of a GBM.

ORGANIZATIONAL LEADERSHIP EXPERIENCE

Better Living Using Engineering Laboratory, University of Michigan, Ann Arbor, MI,
Vice-President (2003-2005), Co-President (2005-2007)

Engineers for a Sustainable World, Ithaca, NY, Central-East Regional Director of Chapter Relations (2004-2005)

Engineers without Frontiers, Cornell University Chapter, Ithaca, NY, Co-President, member of founding executive board (2002-2003)

Society of Hispanic Professional Engineers, Cornell University Chapter, Ithaca, NY, Director of Communications (2000-2001), Director of Marketing and Career Development (2001-2002)

Engineering Student Council, Cornell University Chapter, Ithaca, NY, Co-Chair of Representatives (2001-2002)

ENGAGEMENT

2017 NSF Graduate Research Fellowship Program (GRFP) Review Panel, Panelist (2017)

Neuroscience Program Executive Committee, University of Illinois at Urbana-Champaign, Urbana-Champaign, IL, Outreach/Brain Awareness Chair (2016)

Department of Kinesiology and Community Health, College of Applied Health Sciences, Search Committee for Health Technology and Aging position, University of Illinois at Urbana-Champaign, Urbana-Champaign, IL, Member (2016)

Carle Illinois College of Medicine, Musculoskeletal Course, University of Illinois at Urbana-Champaign, Urbana-Champaign, IL, Interim Course Co-Director (2016)

Extreme Entrepreneurial lock-in (Topic: Aging in Modern Society), Innovation Living-Learning Community and Sustainability Living-Learning Community, University of Illinois at Urbana-Champaign, Urbana, IL, Judge (2015)

Brain awareness day, University of Illinois at Urbana-Champaign, Champaign, IL, Volunteer (2015), Executive Committee Faculty Member (2015- Present)

College of Applied Health Sciences Ad hoc committee on Rehabilitation engineering and safe, independent living in the latter part of the lifespan, University of Illinois at Urbana-Champaign, Urbana-Champaign, IL, Member (2015)

Temporal Dynamics of Learning Center (TDLC) Fellows Committee, University of California, San Diego, CA, Sensory Motor Network Representative (2012-2014)

Cornell Alumni Admissions Ambassador Network, Cornell University, Ithaca, NY, Member (2009-Present)

Departmental Visit Committee, University of Michigan, Ann Arbor, MI, Co-chair (2008)

BME Graduate Orientation, University of Michigan, Ann Arbor, MI, Volunteer (2005,2007)

BME Graduate Student Academic Committee, University of Michigan, Ann Arbor, MI,
Member (2006-2007)

RECRUITMENT OF UNDERREPRESENTED MINORITIES, UNIVERSITY OF MICHIGAN

HENAAC Career Exposition and Awards Show, Career Fair and Graduate School Fair,
Anaheim, CA, October 5-7, 2006.

Cornell University, Information Session and Graduate School Fair, Ithaca, NY, September 27-
28, 2005.

Society of Hispanic Professional Engineers National Conference, Graduate Student Panel and
Career Fair, Dallas, TX, January 5-9, 2005.

PROFESSIONAL ENGAGEMENT

Reviewer for 2017 Annual Conference of the American Society of Biomechanics, Boulder, CO,
USA.

Reviewer for Brain and Cognition

Reviewer for Biomedical Engineering Division for 2017 Annual Conference of the American
Society for Engineering Education, Columbus, OH, USA.

Reviewer for Journal of Neurological Sciences

Reviewer for Journal of Biomechanics

Reviewer for Psychology and Neuroscience

Reviewer for 2016 Annual International Conference of the IEEE Engineering in Medicine and
Biology Society, Orlando, FL, USA.

Reviewer for 2016 Annual Conference of the Gerontological Society of America, New Orleans,
LA, USA.

Reviewer for for 2016 Annual Conference of the Gait & Clinical Movement Analysis Society,
Memphis, TN, USA.

Reviewer for Biomedical Engineering Division for 2016 Annual Conference of the American
Society for Engineering Education, New Orleans, LA, USA.

Reviewer for Journal of Motor Behavior

Reviewer for Journal of Rehabilitation Research & Development

Reviewer for PLOS ONE

Reviewer for Human Movement Science

Reviewer for Neurorehabilitation & Neural Repair

Reviewer for IEEE Transactions on Biomedical Engineering

Reviewer for Physiotherapy Theory and Practice

Reviewer for Journal of the American Aging Association

Reviewer for IEEE Transactions on Biomedical Circuits and Systems

Reviewer for 3rd Annual International Conference on Biomedical Engineering and
Biotechnology, Beijing, China.

Reviewer for 2014 Annual Conference of the Gerontological Society of America, Washington,
DC, USA.

Reviewer for Transactions on Neural Systems & Rehabilitation Engineering

Reviewer for Clinical Interventions in Aging
Reviewer for BMC Musculoskeletal Disorders
Reviewer for BMC Geriatrics
Reviewer for Design in Engineering Education Division for 2013 Annual Conference of the American Society for Engineering Education, Atlanta, GA, USA.
Reviewer for Journal of Gerontology: Medical Sciences
Reviewer for Design in Engineering Education Division for 2011 Annual Conference of the American Society for Engineering Education, Vancouver, BC, Canada.
Co-chair of Aging session, 33rd Annual Meeting of the American Society of Biomechanics, State College, PA, August 28, 2009.

PROFESSIONAL MEMBERSHIPS

American Association for the Advancement of Science • American Society of Biomechanics • American Society for Engineering Education • IEEE Engineering in Medicine and Biology Society • International Parkinson and Movement Disorder Society • Gait and Clinical Movement Analysis Society • Gerontological Society of America • Society for Neuroscience • Society for the Neural Control of Movement

CONFERENCE PRESENTATIONS

1. **Hernandez ME**, Chaparro G, Moon Y, Sosnoff J. The effect of attention and stance on the rambling and trembling components of postural sway in older adults. Proceedings of the 41st Annual Meeting of the American Society of Biomechanics, Boulder, CO, August 8-11, 2017 (Accepted).
2. **Hernandez ME**, Chaparro G, Motl R. Gait impairments during self-paced treadmill walking in older adults with multiple sclerosis. Proceedings of the 21st IAGG World Congress of Gerontology and Geriatrics, San Francisco, CA, July 23-27, 2017 (Accepted Late Breaker Abstract).
3. **Hernandez ME**, Chaparro G, Holtzer R, Izzetoglu M, Motl R. Cognitive control of tandem walking in middle-aged to older adults with multiple sclerosis. Proceedings of the 2017 Gait & Clinical Movement Analysis Society, Salt Lake City, UT, May 23-26, 2017 (Accepted).
4. **Hernandez ME**. Brain activation changes during locomotion in older adults with multiple sclerosis. Proceedings of the 69th Annual Meeting of the Gerontological Society of America, New Orleans, LA, November 18, 2016.
5. **Hernandez ME**, Chaparro G, O'Donnell E, Holtzer R, Izzetoglu M, Motl R. Brain activation changes during balance and attention demanding tasks in older adults with multiple sclerosis. Proceedings of the 2016 Society for Neuroscience Annual Meeting, San Diego, CA, November 16, 2016.
6. Chaparro G, Piton L, Walker R, Holtzer R, Izzetoglu M, Motl R, **Hernandez ME**. Effects of dual-tasking and body weight support on prefrontal cortical activation in individuals with

- multiple sclerosis. Proceedings of the 2016 Annual meeting of the American Congress of Rehabilitation Medicine (ACRM), Chicago, IL, November 3, 2016.
7. Widdowson C, Ganhotra J, Faizal M, Wilko M, Parikh S, Adhami Z, **Hernandez ME**. Virtual reality applications in assessing the effect of anxiety on sensorimotor integration in human postural control. Proceedings of the 2016 38th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC), Orlando, FL, August 17, 2016
 8. **Hernandez ME**, Chaparro G, Holtzer R, Balto J, Sandroff B, Izzetoglu M, Motl R. Brain activation changes during self-paced gait in older adults with multiple sclerosis. Proceedings of the Federation of European Neuroscience Societies (FENS) Forum 2016, Copenhagen, Denmark, July 5, 2016.
 9. Motl RW, Balto JM, **Hernandez ME**, Sandroff BM. Physical functioning among older adults with MS: Evidence based on an objective outcome. Proceedings of the Annual Meeting of the Consortium of Multiple Sclerosis Centers, National Harbor, MD, June 3, 2016.
 10. **Hernandez ME**, Chaparro G, Balto J, Sandroff B, Motl R. The use of augmented reality on a self-paced treadmill to quantify footfall placement variability in older adults with multiple sclerosis. Proceedings of the 2016 Gait & Clinical Movement Analysis Society, Memphis, TN, May 20, 2016.
 11. Chaparro G, Moon Y, Wajda D, Sosnoff J, **Hernandez ME**. Influence of attention on postural control stochastic dynamics in young and older adults. Proceedings of the 68th Annual Meeting of the Gerontological Society of America, Orlando, FL, November 21, 2015.
 12. **Hernandez ME**, Weyhenmeyer J, Lainscsek C, Sejnowski T, Poizner H. Delay differential analysis: a framework for multimodal non-linear classification of Parkinson's Disease. Proceedings of the 2015 Society for Neuroscience Annual Meeting, Chicago, IL, October 17, 2015.
 13. Chaparro G, Moon Y, Wajda D, Sosnoff J, **Hernandez ME**. Influence of attention and stance on postural control stochastic dynamics. Proceedings of the 2015 Society for Neuroscience Annual Meeting, Chicago, IL, October 17, 2015.
 14. Walker R, Chaparro G, Jean K, Piton L, Passarelli V, **Hernandez ME**. Effect of partial body weight support on single leg stance times during self-paced walking in healthy older adults. Proceedings of the 2015 Biomedical Engineering Society Annual Meeting, Tampa, FL, October 10, 2015.
 15. **Hernandez ME**, Snider J, Stevenson C, Cauwenberghs G, Poizner H. A novel tool for analyzing stochastic postural control dynamics. Proceedings of the 2015 Gait & Clinical Movement Analysis Society, Portland, OR, March 19, 2015.

16. **Hernandez ME**, Weyhenmeyer J, Lainscsek C, Sejnowski TJ, Poizner H. Delay differential analysis of EEG during reaching to grasp virtual objects. Proceedings of the 2014 Society for Neuroscience Annual Meeting, Washington, DC, November 17, 2014.
17. Weyhenmeyer J, **Hernandez ME**, Lainscsek C, Sejnowski TJ, Poizner H. Muscle Artifacts in Single Trial EEG data Distinguish Patients with Parkinson's Disease from Healthy Individuals. Proceedings of the 36th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, Chicago, IL, August 28, 2014.
18. **Hernandez ME**, Stevenson C, Snider J, Poizner H. Human cortical theta during quiet stance encodes postural stability. Proceedings of the 2013 Society for Neuroscience Annual Meeting, San Diego, CA, November 13, 2013.
19. Lukos JR, Hillyard S, Kaestner E, **Hernandez ME**, Snider J, Tunik E, Halgren E, Poizner H. EEG abnormalities in patients with Parkinson's disease during online grasp adaptation. Proceedings of the 2013 Society for Neuroscience Annual Meeting, San Diego, CA, November 11, 2013.
20. Lainscsek C, **Hernandez ME**, Weyhenmeyer J, Sejnowski T, Poizner H. Non-linear dynamical analysis of EEG time series distinguishes patients with Parkinson's disease from healthy individuals. Proceedings of the 2013 Society for Neuroscience Annual Meeting, San Diego, CA, November 10, 2013.
21. Lainscsek C, Weyhenmeyer J, **Hernandez ME**, Poizner H, Sejnowski T. Non-linear dynamical classification of short time series of the Rössler system in high noise regimes. Proceedings of the 2013 Society for Neuroscience Annual Meeting, San Diego, CA, November 10, 2013.
22. **Hernandez ME**, Stevenson C, Snider J, Poizner H. Center of pressure velocity autocorrelation as a new measure of postural control during quiet stance. Proceedings of the 2013 International IEEE/EMBS Conference on Neural Engineering, San Diego, CA, November 7, 2013.
23. Lainscsek C, **Hernandez ME**, Poizner H, Sejnowski T. Multivariate spectral analysis of electroencephalography data. Proceedings of the 2013 International IEEE/EMBS Conference on Neural Engineering, San Diego, CA, November 7, 2013.
24. Lainscsek C, **Hernandez ME**, Weyhenmeyer J, Sejnowski T, Poizner H. Non-linear dynamical analysis of human EEG during reaching for and grasping virtual objects. 2013 Temporal Dynamics of Learning Center All Hands Meeting, University of California, San Diego, La Jolla, CA, February 8, 2013.
25. **Hernandez ME**, Ashton-Miller JA, Alexander NB. Influence of Postural Control and Leg Strength on Downward Reaching Performance in Older Adults. Proceedings of the 65th Annual Meeting of the Gerontological Society of America, San Diego, CA, November 14, 2012.

26. **Hernandez ME.** The effect of age and movement direction on rapid and accuracy-constrained center of pressure movements in healthy women. Platform presentation, 9th Annual Meeting of the Society for Autonomous Neurodynamics, San Diego, CA, August 22, 2012.
27. **Hernandez ME,** Ashton-Miller JA, Alexander NB. The effect of age and movement direction on rapid and targeted center of pressure submovements while crouching. Proceedings of the 36th Annual Meeting of the American Society of Biomechanics, Gainesville, FL, August 16, 2012.
28. **Hernandez ME,** Ashton-Miller JA, Alexander NB. Why do older women utilize slower volitional center of pressure movements when accuracy is constrained? The role of the primary submovement. Proceedings of the 35th Annual Meeting of the American Society of Biomechanics, Long Beach, CA, August 13, 2011.
29. **Hernandez ME,** Xiang X, Park YE, Goenawan I, Yawson F, Lowe E. Implementation of an Integrated Product Development Competition in a Rural Dominican Community: Lessons Learned. Proceedings of the 118th Annual Meeting of the American Society for Engineering Education, Vancouver, BC, Canada, June 28, 2011.
30. **Hernandez ME,** Ashton-Miller JA, Alexander NB. Forward dynamic model of the momentum arrest phase of whole-body downward reaching movements: Effects of age and functional impairment. Proceedings of the 21st Annual Meeting of the Society for the Neural Control of Movement, San Juan, PR, April 27, 2011.
31. **Hernandez ME,** Ashton-Miller JA, Alexander NB. An experimental study of postural control during downward reach and pick-up movements: Effects of age and limiting the length of the base of support. Proceedings of the 34th Annual Meeting of the American Society of Biomechanics, Providence, RI, August 19, 2010.
32. **Hernandez ME,** Ashton-Miller JA, Alexander NB. Discrete, accuracy-constrained, center of pressure movements near the limits of the functional base of support: effects of age and movement direction. Proceedings of the 20th Annual Meeting of the Society for the Neural Control of Movement, Naples, FL, April 24, 2010.
33. **Hernandez ME,** Ashton-Miller JA, Alexander NB. Losses of balance during downward reach and pick-up movements in older adults. Platform presentation, 62nd Annual Meeting of the Gerontological Society of America, Atlanta, GA, November 21, 2009.
34. **Hernandez ME,** Ashton-Miller JA, Alexander NB. Control of submaximal center of pressure movements in healthy women: effects of age and movement type. Proceedings of the 33rd Annual Meeting of the American Society of Biomechanics, State College, PA, August 27, 2009.
35. **Hernandez ME,** Ashton-Miller JA, Alexander NB. An experimental study of postural control during downward reach and pick-up movements: effects of age and limiting the length of the base of support. Platform presentation, 3rd Annual University of Michigan College of Engineering Graduate Symposium, Ann Arbor, MI, November 7, 2008.

36. **Hernandez ME**, Ashton-Miller JA, Alexander NB. Effect of age and target width on the speed-accuracy trade-off of center of pressure movements near the anterior margin of the base of support in standing. Proceedings of the North American Congress on Biomechanics, Ann Arbor, MI, August 8, 2008.
37. **Hernandez ME**, Ashton-Miller JA, Alexander NB. Downward reach-pick-up strategies in older females with self-reported difficulty. Platform presentation, 60th Annual Meeting of the Gerontological Society of America, San Francisco, CA, November 20, 2007.
38. **Hernandez ME**, Ashton-Miller JA, Alexander NB. Theoretical analysis of factors affecting dynamic stability during the momentum arrest phase of a downward reach and pick-up task: simulations with a forward model. Platform presentation, 2nd Annual University of Michigan College of Engineering Graduate Symposium, Ann Arbor, MI, November 2, 2007.
39. **Hernandez ME**, Ashton-Miller JA, Alexander NB. Changes in distal postural control accuracy near the limits of the base of support. Proceedings of the 30th Annual Meeting of the American Society of Biomechanics, Blacksburg, VA, September 8, 2006.
40. **Hernandez ME**, Murphy SL, Ashton-Miller JA, Alexander NB. Co-morbidities and physical performance measures affected by self-reported difficulty in downward reaching tasks. Proceedings of the Midwest Biomedical Engineering Conference, Ann Arbor, MI, April 24, 2006.
41. Goldberg A, **Hernandez ME**, Alexander NB. 2005. Distal leg strength predicts measures of trunk control and clinical balance in older adults. Poster presentation, 4th Annual Wayne State University Institute of Gerontology/University of Michigan Institute of Gerontology & Michigan Alzheimer's Disease Research Center Joint symposium and poster presentation, Detroit, MI, April 6, 2005.
42. Goldberg A, **Hernandez ME**, Alexander NB. Trunk repositioning errors are increased in balance-impaired functionally-independent older adults. Platform presentation, 57th Annual Meeting of the Gerontological Society of America in Washington, DC, Nov 19-23, 2004.
43. Goldberg A, **Hernandez ME**, Alexander NB. Relationships between trunk strength, trunk proprioceptive acuity, and clinical measures of balance in balance-impaired older adults. Featured session: Aging and its relationship to physical performance and chronic disease. Platform presentation, Annual Meeting of the American College of Sports Medicine, Indianapolis, IN, June 4, 2004.
44. Goldberg A, **Hernandez ME**, Alexander NB. Trunk repositioning accuracy in older adults. 3rd Annual Wayne State University Institute of Gerontology/University of Michigan Institute of Gerontology & Michigan Alzheimer's Disease Research Center Joint symposium and poster presentation, Detroit, MI, April 7, 2004.

INVITED SPEAKING ENGAGEMENTS

Hernandez ME. “Brain activation changes during locomotion in middle-aged to older adults with multiple sclerosis,” Invited Talk, Department of Kinesiology and Nutrition, UIC, Chicago, IL, January 27, 2017.

Hernandez ME. “The role of the brain in the prevention of falls,” Invited Talk, Clark-Lindsey Retirement Village, Urbana, IL, July 10, 2015.

Hernandez ME. “The Role of Cognition in the Prevention of Falls in Older Adults,” Invited Talk, Neuropsychology and Cognition Lab, Department of Neurology, Albert Einstein College of Medicine, Bronx, NY, February 26, 2015.

Hernandez ME. “Towards an Understanding of the Brain’s Role in Preventing Falls in Older Adults,” Invited Talk, Department of Kinesiology and Community Health, UIUC, Champaign, IL, November 18, 2013.

Hernandez ME, Mac Donald EF. “Sustainability in the Developed World,” Platform presentation, 3rd Annual Engineers for a Sustainable World Conference, Austin, TX, October 8, 2005.

Schultz W, **Hernandez ME.** “Engineering for Community,” Engineering Education Panel Discussion, 2nd Annual Engineers for a Sustainable World Conference, Palo Alto, CA, October 1, 2004.

Hernandez ME. “Starting an Engineers Without Frontiers Chapter,” Platform Presentation, 1st Annual Engineers Without Frontiers Conference, Ithaca, NY, September 20, 2003.

CAMPUS TALKS

“Altered PFC activation during locomotion in older adults with multiple sclerosis,” 3rd Health Care Engineering Systems Symposium, September 9, 2016.

“Neural dynamics underlying motor adaptation to object perturbations in Parkinson’s disease,” Neuroscience Program Seminar Series, Neuroscience Program, April 26, 2016.

Hernandez ME, Ekert J. “iPads for Student Feedback and Real World Activities,” Teaching with Technology Brown Bag Series, Center for Innovation in Teaching & Learning, September 9, 2015.

“Motor control alterations in Parkinson’s disease,” General Body Meeting, Undergraduate Neuroscience Society, March 2, 2015.

“Towards an Understanding of the Neural Mechanisms Underlying Human Postural Control,” Chalk Talk, Institute for Neural Computation, May 29, 2014.

“UROP Scholars Graduate Panel,” Panel Discussion, Undergraduate Research Opportunity Program Engineering Peer Group, March 19, 2008.

“Energy Independence and Sustainability,” Panel Discussion, Tau Beta Pi Martin Luther King Lecture Series, January 24, 2008.

“Graduate School Panel,” Panel Discussion, Undergraduate Research Opportunity Program Engineering Peer Group, November 28, 2007.

Hernandez ME, Chang T. “Sustainable Development in Global Health,” Platform Presentation, Undergraduate Research Opportunity Program Research Seminar, December 5, 2006.

Hernandez ME, Clarke J. “Methods in Sustainability,” Platform Presentation, Undergraduate Research Opportunity Program Engineering Peer Group, October 4, 2006.

“Engineers Getting Involved,” Panel Discussion, Tau Beta Pi Martin Luther King Lecture Series, January 25, 2005.

MEDIA COVERAGE

Avers D, Hernandez ME, Mangione KK. “Why Do Some Older Adults Have Difficulty With Stooping, Crouching, or Kneeling?” *Physical Therapy discussion podcast*, February 16, 2010. <http://ptjournal.apta.org/content/90/1/67/suppl/DC1>

“Decreased Muscle Strength Predicts Functional Impairments in Older Adults,” February 16, 2010. <http://www.physorg.com/news184268963.html>
<http://www.prnewswire.com/news-releases/decreased-muscle-strength-predicts-functional-impairments-in-older-adults-84500367.html>

Nesbit J, “Annual awards honor service, social action,” *The University Record Online*, April 10, 2006. http://www.ur.umich.edu/0506/Apr10_06/23.shtml

“BLUElab Wins 2005 Elaine Harden Award,” *2004-2005 Mechanical Engineering Annual Report*, p39, 2005. <http://me.engin.umich.edu/news/pubs/ar/index.shtml>
Link “2004-05 Annual Report”

DiMeo F. “Thanks to CU project, L-VIS is in the library,” *Cornell Chronicle*, v35, n21, February 5, 2004. <http://www.news.cornell.edu/Chronicle/04/2.5.04/L-VIS.html>

Berkowitz K. “Making a World of Difference,” *Cornell Engineering Magazine*, v8, n3, Fall 2002. http://132.236.230.130/engrMagazine/magazine.cfm?issue=FALL2002&page_number=1§ion=feature2

LANGUAGES

Spanish fluency and French competency