

CURRICULUM VITAE

BRANDI ROW LAZZARINI, PH.D.

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Department of Exercise Science
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EDUCATION

Pennsylvania State University, University Park, PA

Ph.D., Kinesiology/Biomechanics, minor in Gerontology, August 2003

Doctoral Dissertation: *Weight-Bearing Speed of Movement in Older Adults: The Effects of a High-Velocity Resistance Training Program*

University of Oregon, Eugene, OR

Master of Science, Exercise and Movement Science, June 1999

Master's Thesis: *The One-legged and Two-legged Vertical Jumps: a Kinetic, Electromyographic and Temporal Analysis*

Willamette University, Salem, OR

Bachelor of Arts, Biology, minor in Spanish, May 1996

Senior Thesis: *Menstrual Synchrony, in Search of Pheromones: Variance of Forearm and Axillary Skin Oil and Sweat Secretions of Women*

EMPLOYMENT

Willamette University, Salem, OR

Associate Professor, Dept. of Exercise Science, Aug. 2012 to present, earned tenure in Spring 2017

Teaching assignment includes the following courses:

1. *Biomechanics* (EXSCI 347– most semesters, Fall 2012 onward) - includes laboratory
2. *Motor Learning and Motor Control* (EXSCI 357 – one semester per year, Spring 2012 onward)
3. *Lab for Clinical Healthcare, Theory and Application* (EXSCI 340Y), most semesters Fall 2016 onward
4. *Aging, Health, and Functional Assessment* ('Special Topics in Exercise Science' EXSCI 358, one semester bi-annually, Fall 2016 onward)
5. *Aging, Physical Activity, and Health* ('Special Topics in Exercise Science' EXSCI 358, one semester, Fall 2012)
6. *Research Design* (EXSCI 356W – one semester per year, Spring 2012 - 2015)
7. *College Colloquium* (IDS 101, annually, Fall 2013 –Fall 2015)

Another course that is in addition to my workload is supervision of students through the drafting process of their Senior Seminar project.

Western Washington University, Bellingham, WA

Assistant Professor, Department of Physical Education, Health and Recreation, Sept. 2006 to Aug. 2012

Granted tenure and promoted to Associate Professor: Spring 2012

Teaching assignment included the following courses:

1. Functional Anatomy (KIN 312 – two quarters per year, 2006 to 2012) - includes laboratory component and training/supervision of a teaching assistant
2. Biomechanics (KIN 311 – one quarter per year, 2007 to 2012) - includes laboratory component and development/supervision of a teaching assistant
3. Exercise Physiology (KIN 413 – one quarter per year, 2007 to 2011) - includes laboratory component and development/supervision of a teaching assistant
4. Functional Assessment of Older Adults (KIN 409 – one quarter per year, 2007 to 2012) - includes laboratory component
5. Physical Dimensions of Aging (KIN 309 – one quarter per year, 2008 to 2012)
6. Statistics in Exercise and Sports Science (KIN 307 – one quarter per year, 2007 to 2008)
7. Survey of Physical Education and Health (KIN 301 – team-taught, one quarter per year, 2007 to 2012)
8. Laboratory Techniques in Exercise Science (KIN 510 – team-taught, Winter 2011)
9. Biomechanics of the Musculoskeletal System (KIN 544 – Winter 2012)

Other courses that were part of my workload included KIN 491 (field experience), KIN 471/2 (internship), and KIN 690 (master's thesis).

PRIOR UNIVERSITY-LEVEL TEACHING ACTIVITIES

University of Toronto, Toronto, ON

Postdoctoral Research Fellow Teaching Assistant, Health Care, Technology and Place Program Core Course in Technologies, Jan. 2004 – Apr. 2004

- Coordinated the grading and record-keeping for the course
- Attended weekly lectures, assisted with facilitating the course logistics
- Assisted students with writing and presentation assignments
- Evaluated the students' research proposals and presentation assignments
- Maintained accessibility to students

Pennsylvania State University, University Park, PA

Dissertation Study, Spring 2002 – Fall 2002

- Trained four research assistants to help with execution of my dissertation study. Skills taught included the administration of a high-velocity resistance training exercise intervention and assisting with laboratory testing of stepping performance, and testing of muscular strength and power in the fitness centre

Graduate Teaching Assistant, Laboratory Instructor, Human Anatomy, Aug. 1999 – Dec. 1999

- Instructed two 2-hour laboratory sessions per week
- Assisted with the development of the laboratory manual
- Presented lab material pertaining to the musculoskeletal system
- Assisted with the preparation of the laboratory examinations
- Graded laboratory exams, maintained availability to students including weekly office hours

University of Oregon, Eugene, OR

Graduate Teaching Fellow Laboratory Instructor, Human Anatomy, Sept. 1998 – Jun. 1999

- Instructed two 2-hour lab sessions per week
- Presented lab material regarding the musculoskeletal system and all other body systems
- Assisted with the preparation of the laboratory examinations
- Graded laboratory exams, maintained availability to students
- Engaged in dissection of human cadavers throughout three consecutive terms

Graduate Teaching Fellow Laboratory Instructor, Human Physiology, Sept. 1998 – Jun. 1999

- Instructed one 3-hour lab session per week
- Lectured regarding weekly laboratory topic, including use of visual material
- Assisted and supervised experiments, managed situations when difficulties arose
- Graded weekly laboratory reports, maintained availability to students

RESEARCH TRAINING

*Centre for Studies in Aging, Sunnybrook and Women's College Health Sciences Centre (SWCHSC),
Sept. 2003 – July 2006*

Postdoctoral Research Fellow

Fellowship constitutes a collaboration between 1) the Health Care, Technology and Place (HCTP) Program - a Canadian Institute of Health Research (CIHR) Interdisciplinary Training Initiative, 2) the Toronto Rehabilitation Institute, and 3) the NET team at the Centre for Studies in Aging, SWCHSC

Participating in interdisciplinary health research in coordination with HCTP faculty mentors, and a team of NET faculty mentors, specifically conducting research projects and/or literature reviews assessing:

- 1) The difficulties associated with winter for older adults, particularly issues related to health, mobility and social participation
- 2) Designing appropriate cold weather clothing for low functioning older adults
- 3) The effects of balance confidence, temperament, and the anticipation of a perturbation on balance recovery in older adults
- 4) The relationship between technology, the physical environment, the onset frailty and maintaining independence in older adulthood

Pennsylvania State University, Aug. 1999 – Aug. 2003

Albert and Lorraine Kligman Graduate Research Fellow, Sept. 2002 – May 2003

Research fellowship created by an endowment made by Albert Kligman, M.D. and Lorraine Kligman to the PSU College of Health and Human Development in order to fund the final year of doctoral program for promising contributors to health research

Finished the final year of dissertation project investigating:

- 1) The relationship between lower extremity muscular strength and power and stepping performance in older adults
- 2) The effects of exercise training on rapid stepping performance in older adults
- 3) The development of clinical tools to assess rapid stepping performance and lower extremity muscular power in older adults

Pre-doctoral Trainee for the Interdisciplinary Program in Gerontology, Jan. 2000 –Sept. 2002

Fellowship funded by the National Institute on Aging in order to foster research that will contribute toward general knowledge of aging

Took courses in research methods, and theoretical and applied courses in biomechanics and motor control

Conducted research pertaining to:

- 1) The effects of aging on functional performance, particularly involving stepping performance
- 2) The utility of a test of upward reach compared to the functional reach test in describing function in older adults
- 3) The relationship between lower extremity strength and locomotor activities of daily living in older adults

University of Oregon, Eugene, OR, Aug. 1997 – Jun. 1999

Graduate Student

Performed laboratory research activities for graduate biomechanics courses using biomechanical and motor control research methods to explore the mechanics and neurophysiology of movement

Conducted research pertaining to:

- 1) The factors contributing to the one-legged and two-legged vertical jump techniques
- 2) Issues relating to the biomechanics of sport and human gait
- 3) The causative factors of the preferred gait transition speed in humans

Willamette University, Salem, OR, Aug. 1992 – May 1996

Undergraduate Student

Performed laboratory research activities for undergraduate biology courses using biological and chemical experimental research methods

Conducted an independent research project pertaining to menstrual synchrony and human pheromones in college-aged females

PEER-REVIEWED PUBLICATIONS

1. Ruwitch, M.R., and **Row Lazzarini, B.S.**. Development of a Rapid Stepping Test to Challenge Rapid Weight-Shifting Function in Older Adults. *Aging Clinical and Experimental Research*, 2017;29(4):701-9.
2. **Row Lazzarini, B.S.**, and Kataras, T.J. Treadmill Walking is not Equivalent to Overground Walking for the Study of Walking Smoothness and Rhythmicity in Older Adults. *Gait & Posture*, 2016;46:42-46.
3. **Row Lazzarini, B.S.**, Dropp, M., Lloyd, W. Upper Extremity Explosive Resistance Training with Older Adults Can Be Regulated Using the Rating of Perceived Exertion. *Journal of Strength and Conditioning Research*, 2017;31(3):831-6.
4. **Row, B.S.**, Knutzen, K., and Skogsberg, N. Regulating Explosive Resistance Training Intensity Using the Rating of Perceived Exertion. *Journal of Strength and Conditioning Research*, 2012;26(3):664-71.
5. Chalmers, G.R., and **Row, B.S.** Common Errors in Textbook Descriptions of Muscle Fiber Size in Nontrained Humans. *Sport Biomechanics*, 2011;10(3):254-268.
6. Knutzen, K.M. McLaughlin, W., Lawson, A., **Row, B.S.**, Martin, L.A. Influence of Ramp Position on Joint Biomechanics during Elliptical Trainer Exercise. *The Open Sports Sciences Journal*, 2010;3:165-177.
7. Fernie, G.R., Li, Y., **Row, B.S.**, Hsu, J. *Walking in Winter. The State of the Science in Universal Design: Emerging Research and Developments.* Ed. Jordana L. Maisel. Bentham eBooks, 2010;99-107. <http://www.benthamscience.com/ebooks/9781608050635/>
8. **Row, B.S.** and Cavanagh, P.R. Reaching Upward is More Challenging to Dynamic Balance than Reaching Forward. *Clinical Biomechanics*, 2007;22(2):155-64.
9. Hreljac, A., Arata, A., Chen, S-J., Ferber, R., Keller, T. L., Mercer, J.A., & **Row, B.S.** An electromyographical analysis of the role of dorsiflexors on the gait transition during human locomotion. *Journal of Applied Biomechanics*, 2001;17:287-96.

MANUSCRIPTS IN PREPARATION FOR IMMINENT SUBMISSION

1. **Row Lazzarini, B.S.**, Cavanagh, P.R. Lower Extremity Power is Important for Rapid Stepping Performance in Older Adults. In preparation for submission to the *American Journal of Physical Medicine & Rehabilitation*.

PEER-REVIEWED PRESENTATIONS

1. Russo, L., and **Row Lazzarini, B.** Dynamic Knee Valgus: Effect of Warm-up Duration on Female Soccer Players. Poster presentation by L. Russo at the American College of Sports Medicine annual meeting, San Diego, CA, May 2015.
2. **Row Lazzarini, B.**, Ruwitch, M.M., Kataras, T.K., Can Trunk Acceleration Measures During a Simple Medial-Lateral Step Test Predict Gait Smoothness in Seniors? Poster presentation by B. Row Lazzarini at the American College of Sports Medicine, Orlando, FL, May 2014.
3. Ruwitch, M.M., Kataras, T.K., **Row Lazzarini, B.** Development of stepping test that challenges medial-lateral control in older adults. Poster presentation by M. Ruwitch at the American College of Sports Medicine, Orlando, FL, May 2014.
4. Kataras, T.K., Ruwitch, M.M., **Row Lazzarini, B.** Treadmill walking is problematic for the study of gait smoothness in older adults. Poster presentation by **B. Row Lazzarini** at the World Congress of Biomechanics, Boston, MA, July 2014.
5. Wise, Z., **Row, B.S.** The Effects of Whole Body Vibration on Knee Electromyography and Kinematics of Single-Leg Landings Among Female Athletes. Podium presentation by Z. Wise at the annual meeting of the Northwest Biomechanics Symposium (regional chapter of the American Biomechanics Society), University of Idaho, Moscow, ID, June 2013.
6. **Row, B.S.**, Dropp, M., Lloyd, W. Regulating Upper Extremity Explosive Resistance Training for Older Adults using the RPE. Poster presented by B.S. Row at the annual meeting of the American College of Sports Medicine, Indianapolis, IN, May 2013; *Medicine and Science in Sports and Exercise*, 45(5 Supplement):S318.
7. Tupper, K.J., and **Row, B.S.** Is Four Weeks Enough To Improve Balance And Mobility Function Of Older Adults Who Are Already Physically Active? Poster presented by K. Tupper at the annual meeting of the American College of Sports Medicine, San Francisco, CA, June 2012.
8. **Row, B.S.** and Tupper, K.J. Accelerometry methods reveal improvements in frontal plane stability after only four-weeks of balance and mobility training. Poster presented by B. Row at the annual meeting of the American College of Sports Medicine, San Francisco, CA, June 2012.
9. Brilla, L.B., **Row, B.S.**, and Knutzen, K.M. Effect of Creatine Magnesium Supplementation on Delayed Onset Muscle Soreness. Poster presented by L. Brilla at the annual meeting of the American College of Sports Medicine, Denver, CO, June 2011.
10. Hahn Kaufman, T.J., Brilla, L.R., **Row, B.S.**, and Knutzen, K.M. Effect Inspiratory Muscle Training and Core Exercise Training on Core Functional Tests. Poster presented by L. Brilla at the annual meeting of the American College of Sports Medicine, Baltimore, MD, June 2010.
11. **Row, B.S.**, and Knutzen, K. Resistance training elicits more robust trunk acceleration and orientation during walking in adults with diabetes. Oral presentation by B. Row at the annual meeting of the American College of Sports Medicine, Baltimore, MD, June 2010.
12. Knutzen, K.M., Brilla, L.R., **Row, B.S.**, Li, Y., Freeman, J., and Lindsey, B. Effect of high resistance weight training on reported pain in individuals with Type 2 Diabetes. Poster presented by K. Knutzen at the annual meeting of the American College of Sports Medicine, Baltimore, MD, June 2010.

13. Newton, C.Q., **Row, B.S.**, Knutzen, K.M., Dudley, J., Landis, K., and Brilla, L.R. Examination of creatine-magnesium chelate and alkaline creatine compound supplementations on knee extensor torque measurements. Poster presented by C. Newton at the annual meeting of the American College of Sports Medicine, Baltimore, MD, June 2010.
14. Brilla, L.R., Schwerdtfeger, K., Knutzen, K.M., and **Row, B.S.** Effects of inspiratory muscle training on arterial oxygen-hemoglobin saturation in female collegiate endurance runners. Poster presented by K. Schwerdtfeger at the Annual meeting of the American College of Sports Medicine, Seattle, WA, May 2009.
15. Brock, B., Knutzen, K.M., Brilla, L.R., and **Row, B.S.** Effects of variable velocity eccentric muscle actions on caloric expenditure and delayed onset muscle soreness. Poster presented by B. Brock at the Annual meeting of the American College of Sports Medicine, Seattle, WA, May 2009.
16. Jackson, M. A., Brilla, L.R., Knutzen, K.M., and **Row, B.S.** Effect of Inspiratory Muscle Training on Exercise Capacity and Quality of Life in Older Adults. Poster presented by L. Brilla at the annual meeting of the American College of Sports Medicine, Seattle, WA, May 2009.
17. **Row, B.S.**, Knutzen, K.M., Brilla, L.R., Freeman, J., Li, Y., and Lindsey, B. Poor glucose control is related to reduced balance control in adults with Type II Diabetes. Poster presented by B. Row at the North American Congress on Biomechanics, Ann Arbor, MI, August 2008.
18. **Row, B.S.**, Knutzen, K.M., Hollander, C.S., and Roake, A. The Use of RPE with Older Adults to Identify Training Loads for High-Velocity Resistance Training. Oral presentation by B. Row at the American College of Sports Medicine, Indianapolis, IN, May 2008.
19. Knutzen, K.M., McLaughlin, W., Lawson, A., **Row, B.S.**, and Martin, L. Ramp Position Influences Lower Extremity Biomechanics while Exercising on the Elliptical Trainer. Poster presented by K. Knutzen at the American College of Sports Medicine, Indianapolis, IN, May 2008.
20. Li, Y., Hill, S.W., **Row, B.**, McIlroy, W.E., Mihailidis, A., and Fernie, G. 2007. Walking in the cold: body temperature and heart rate during North American winter. *Journal of Biomechanics* 40(Suppl. 2), pp. 334.
21. **Row, B.S.** and Fernie, G.R. The role of the environment and technology on Frailty in older adults. Oral presentation as part of a symposium with the Canadian Initiative on Frailty and Aging at the Canadian Association of Gerontology, Halifax, NS, October 2005.
22. **Row, B.S.**, and Cavanagh, P.R. Load-Specific Relationships between Muscular Power and Bone Mineral Density. Poster presented at the combined congress of the International Society of Biomechanics and the American Society of Biomechanics, Cleveland, OH, August 2005.
23. **Row, B.S.**, Paul, J.C., McKeever, P., and Fernie, G.R. Winter Presents Barriers to Physical and Social Activity in Functionally Impaired Older Adults. Poster presented at the American College of Sports Medicine's 2005 annual meeting, Nashville, TN, June 2005.
24. **Row, B.S.**, Fernie, G.R., Paul, J.C., and Maki, B.E. Stairs and Winter Weather: Barriers to Activity and Mobility for Many Older Adults. Poster presented at the American College of Sports Medicine's 2005 annual meeting, Nashville, TN, June 2005.

25. **Row, B.S.**, Paul, J.C., McKeever, P., and Fernie, G.R. What is Keeping Older Adults Shut-In during the Winter? Oral presentation at the Gerontological Society of America annual meeting, Washington D.C., November 2004.
26. **Row, B.S.** and Cavanagh, P.R. The Step in Place Test: A Clinical Test of Stepping Speed of Older Adults. Oral presentation at the American College of Sports Medicine annual conference, Indianapolis, IN, June 2004. *Medicine & Science in Sports & Exercise*, 2004;36(5):S100.
27. **Row, B.S.** and Cavanagh, P.R. The Relationship between Bone Mineral Density of the Proximal Femur and Lumbar Spine and Muscular Strength and Power of Five Lower Extremity Muscle Groups in Older Adults. Poster presented at the Gait and Clinical Movement Analysis Society's annual conference, Lexington, KY, April 2004.
28. **Row, B.S.** and Cavanagh, P.R. The Effect of Exercise Training on Anticipatory Postural Adjustments during Compensatory and Volitional Stepping. Poster presented at the Gait and Clinical Movement Analysis Society's annual conference, Lexington, KY, April 2004.
29. **Row, B.S.** and Cavanagh, P.R. Weight-Bearing Speed of Movement in Older Adults: The Effects of High-Velocity Resistance Training. Oral presentation at the Bi-Annual Congress of the International Society of Biomechanics, Dunedin, New Zealand, July 2003.
30. **Row, B.S.**, Braungart, E.R., and Zarit, S.H. Performance of Functional Tests in the Oldest Old. Oral presentation by S. Zarit at the Nordiske Congress in Gerontology, Denmark, May 2002.
31. Bus, S.A., **Row, B.S.**, Okita, N., and Cavanagh, P.R. Lower-extremity Strength Requirements in Young and Older Female Adults during Locomotor Activities of Daily Living. Oral presentation by S.A. Bus at the American Society of Biomechanics annual conference, San Diego, CA, August 2001.
32. **Row, B.S.**, and Cavanagh, P.R. A Test of Upward Reach. Poster presented at the Gait and Clinical Movement Analysis Society's annual conference, Sacramento, CA, April 2001.
33. Christina, K.A., **Row, B.S.**, Becker, M., Bus, S.A., Larsson, L., **and** Cavanagh, P.R. Motor Performance Following Prolonged Bed-Rest: A Case Study. Poster presented by K.A. Christina at the Gait and Clinical Movement Analysis Society's annual conference, Sacramento, CA, April 2001.
34. **Row, B.S.** and Hreljac, A. The one-legged and two-legged vertical jumps: A kinetic and temporal analysis. Oral presentation at the Annual Conference of the American Society of Biomechanics, Chicago, IL, July 2000.
35. **Row, B.S.** and Hreljac, A. Analysis of temporal and electromyographic parameters of the one-legged and two-legged vertical jumping techniques. Poster presented at the American College of Sports Medicine Annual Meeting, Thematic Poster Session, June 2000.

NON PEER-REVIEWED COMMUNITY PRESENTATIONS

1. **Row Lazzarini, B.S.** Walking with harmony and rhythm: Walking smoothness and temporal variability. A Faculty Colloquium presentation to my colleagues, Willamette University, Salem, OR, March 2014.
2. **Row Lazzarini, B.S.**, Kataras, T., and Ruwitch, M. Exploring walking smoothness and step performance of older adults. A presentation to the residents of Capitol Manor retirement community, Salem, OR, March 2014.
3. **Row Lazzarini, B.S.**, Kataras, T., and Ruwitch, M. Can we learn something by studying speed of movement and walking smoothness in older adults? A presentation to the Willamette Institute of Continued Learning, Willamette University, Salem, OR, February 2014.
4. **Row, B.S.** Exercises and Strategies that Enhance Balance. A keynote presentation to the community as part of the Falls Prevention and Awareness Day coordinated by Providence St. Peter's Hospital, Olympia, WA, September, 2008.
5. Geoff Fernie, Yue Li, **Brandi Row**, Jennifer Hsu. Walking in Winter. A manuscript prepared for presentation at a multi-center conference at the Universite de Sherbrooke, Sherbrooke, Quebec, October 2007.
6. Fernie, G.R., and **Row, B.S.** Do Technological Aids and Environmental Modifications Reduce the Affects of Frailty for Older Adults? Poster presented at the International Meeting of the Canadian Initiative on Frailty and Aging, McGill University, Montreal, QC, Canada, March 2006.
7. **Row, B.S.**, Paul, J.C., McKeever, P., Fernie, G.R. Winter Presents Barriers to Physical and Social Activity in Functionally Impaired Older Adults.
 - Poster presented at the Falls and Mobility Network annual meeting, November 2005.
 - Poster presented at the Aging and Veteran's Care Showcase, Sunnybrook and Women's College Health Sciences Centre, October 2005.
 - Poster presented at the First Annual Rehabilitation Engineering Research Day at the University of Toronto, Toronto, ON, Canada, November 2004.
8. **Row, B.S.**, Fernie, G.R., Paul, J.C., Maki, B.E. Stairs and Winter Weather: Barriers to Activity and Mobility for Many Older Adults. Poster presented at the Falls and Mobility Network annual meeting, November 2005.
9. **Row, B.S.**, Wenk, S.E., Gignac, M.A.M., Fernie, G.R. Reducing the Difficulties Associated with the Use of Winter Coats for Older Adults.
 - Poster presented at the Falls and Mobility Network annual meeting, November 2005.
 - Poster presented at the *Design for the Cold* Research and Design Exhibition and poster competition, Design Exchange and Health Care, Technology, and Place, Toronto, ON, November 2005.
 - Poster presented at the Aging and Veteran's Care Showcase, Sunnybrook and Women's College Health Sciences Centre, October 2005.
 - Poster presented at the Toronto Rehabilitation Research Day, October 2005.

10. Fernie, G.R. and **Row, B.S.** Improving Mobility and Safety of Individuals in the Winter: A Long-Term Research Program at iDAPT.
 - Poster presented at the *Design for the Cold* Research and Design Exhibition and poster competition, Design Exchange and Health Care, Technology, and Place, Toronto, ON, November 2005.
 - Poster presented at the Toronto Rehabilitation Research Day, October 2005.
11. **Row, B.S.** Cold Climate and Mobility Studies. Oral presentation at the Second Annual NET Research Day for the Centre for Studies in Aging, Toronto, ON, Canada, June 2005.
12. **Row, B.S.**, Cavanagh, P.R. Load-Specific Relationships between Muscular Power and Bone Mineral Density. Poster presented at the annual Bone and Mineral Group Research Day, University of Toronto, Toronto, ON, May 2005.
13. **Row, B.S.** Ambulatory Physiological Monitoring in Cold Weather. Invited work-in-progress presentation at the Asthma and Airway Centre rounds, April 27, 2005.
14. **Row, B.S.**, Yantzi, N., McGillion, M., Fernie, G.R. Designing for the Cold: ‘Winterizing Bodies, ‘Bodyizing’ Winter’. Panel presentation and discussion at the Health Care, Technology and Place Program’s annual workshop, April 2005.
15. **Row, B.S.**, Wenk, S.E., Gignac, M.A.M., and Fernie, G.R. Designing a Winter Coat Prototype Suitable for Older Adults with Functional Limitations. A work-in-progress poster presented to the Health Care, Technology and Place Program’s annual workshop, Toronto, ON, April 2005.
16. **Row, B.S.**, Fernie, G.R. A Review: Technology, Environment and Frailty in Older Adulthood. Semi-annual meeting of The Canadian Initiative on Frailty and Aging, McGill University, Montreal, QC, Canada, December 2004.
17. **Row, B.S.** A Conceptual Framework for the Health, Mobility and Psychosocial Effects of Winter for Older Adults. Oral presentation at the First Annual NET Research Day for the Centre for Studies in Aging, Toronto, ON, Canada, August 2004.
18. **Row, B.S.** The Health, Mobility and Psychosocial Effects of Winter for Older Adults, an Interview and Survey Study. Oral presentation at the First Annual Kligman Fellow Research Conference at Penn State University, University Park, PA, June 2004.
19. **Row, B.S.**, Fernie, G.R. The Health and Mobility Difficulties Presented by Winter for Older Adults, Future Research Implications. Presentation to the Institute on Aging Research, University of Sherbrooke, Sherbrooke, QC, Canada, April 2004.
20. **Row, B.S.**, Fernie, G.R. The Effects of Technology and the Environment on Independence for Frail Older Adults. Semi-annual meeting of The Canadian Initiative on Frailty and Aging, McGill University, Montreal, QC, Canada, March 2004.
21. **Row, B.S.** What is Keeping Older Adults Shut-in During the Winter? Presented to the Health Care, Technology and Place Annual Workshop, University of Toronto, ON, Canada, March 2004.
22. **Row, B.S.** The Health, Mobility and Psychosocial Effects of Winter on the Lives of Older Adults. Presented to the Health Care, Technology and Place Research Seminar, University of Toronto, ON, Canada, February 2004.

23. **Row, B.S.**, Fernie, G.R. Training muscular power in older adults. Presentation prepared for the Falls and Mobility Network annual meeting, Sunnybrook & Women's College HSC, Toronto, ON, Canada, November 2003.
(http://www.sunnybrook.utoronto.ca/~csia/Falls&Mobility/Proceed%20Nov17_03/proceed2003.htm)
24. **Row, B.S.**, Fernie, G.R. Winter-specific causes of falls in older adults. Presentation prepared for the Falls and Mobility Network annual meeting, Sunnybrook & Women's College HSC, Toronto, ON, Canada, November 2003.
(http://www.sunnybrook.utoronto.ca/~csia/Falls&Mobility/Proceed%20Nov17_03/proceed2003.htm)
25. **Row, B.S.** and Cavanagh, P.R. Weight-Bearing Speed of Movement in Older Adults: The Effect of Exercise Training. Presented to the Gerontology Colloquium at Penn State, University Park, PA, Spring 2003.
26. **Row, B.S.**, Braungart, E.R., Zarit, S.H. Performance of Functional Tests in the Oldest Old, a Swedish population of Nonagenarians. Presented to the Gerontology Colloquium at Penn State, University Park, PA, Fall 2002.
27. **Row, B.S.**, Cavanagh, P.R. Falls in Older Adults: Assessment and Prevention for Community-Dwellers. Invited presentation at the Conference on Falls-Related Research in the Older Adult, sponsored by the Pennsylvania Psychiatric Institute of the Department of Psychiatry, Penn State College of Medicine, Hershey, PA, Spring 2002.
28. **Row, B.S.** and Christina, K.A. The role of Biomechanics in mobility research in older adults. Invited presentation to the Consumer Sciences of America Group in State College, PA, Spring 2002.
29. **Row, B.S.** Fall prevention research in older adults, the role of biomechanics. Presented to an Elder Hostel group of 30 older adults touring the Center for Locomotion Studies at Penn State University, University Park, PA, Spring 2002.
30. **Row, B.S.** and Braungart, E.R. Beyond the IRB: Research Ethics in Research on Aging. Presented to the Penn State Gerontology Colloquium, University Park, PA, Spring 2002.

GRANTS, FELLOWSHIPS AND AWARDS

Research Grants

Advisory faculty team member for National Science Foundation funded grant to support Willamette University S-STEM project, Co-Principal Investigators: Alison Fisher, Sarah Kirk; USD\$646,986 to support underrepresented students in STEM fields, 2018-22.

Principal Investigator: **Row Lazzarini, B.S.** Funding organization: Atkinson Research Grant, Willamette University (to support research), USD\$2,500, May 2018.

Principal Investigator: **Row Lazzarini, B.S.** Participating student investigators: Hougan, A., Lau, M. Project title: Investigating the repeatability of performance on a test of medial-lateral weight-shifting function and other functional tests. Funding sources: iHuman Science Grant award, an internal funding source at Willamette University (to support student stipend and the purchase of equipment for the summer project). USD\$7,000, June 2018.

Principal Investigator: **Row Lazzarini, B.S.** Funding organization: Atkinson Research Grant, Willamette University (to support research), USD\$2,500, May 2016.

Principal Investigator: **Row Lazzarini, B.S.** Participating student investigator: Bader-Jarvis, J. Project title: Developing a test of medial-lateral weight-shifting function. Funding sources: iHuman Science Grant award, an internal funding source at Willamette University (to support student stipend and the purchase of equipment for the summer project). USD\$7,000, June-August 2016.

Principal Investigator: **Row, B.S.** Funding organization: Atkinson Research Grant, Willamette University (to support the installation of force platform), USD\$2,500, May 2014.

Principal Investigator: **Row, B.S.** Participating student investigators: Ruwitch, M., Kataras, T. Project title: Medial-lateral control of movement in older adults. Funding sources: Science Collaborative Research Program and iHuman Science Grant awards, Internal funding sources at Willamette University (to support student stipends and the purchase of equipment for the summer project). USD\$11,500, June-August 2013.

Principal Investigator: Knutzen, K.M. Participating investigators: Brilla, L., **Row, B.S.** Project title: Kinesiology Lab Enhancement. Funding organization: Student Tech Fee, Western Washington University (to support the purchase of equipment for the Biomechanics and Physiology of Exercise laboratories). USD\$55,651, May 2009.

Principal Investigator: Brilla, L. Participating investigators: Knutzen, K.M., and **Row, B.S.** Project title: An analysis of magnesium-creatine chelate, alkaline creatine compound, and placebo on physical performance in healthy, physically active subjects. Funding organization: Albion Laboratories, Inc. (to support the payment of research assistants, equipment, and conference travel), USD\$6936, September 2008.

Principal Investigator: **Row, B.S.** Funding organization: Research and Sponsored Programs, Western Washington University Grant-in-Aid (to support the purchase of research equipment), USD\$1,750, August 2007.

Principal Investigator: **Row, B.S.** Funding organization: Research and Sponsored Programs, Western Washington University Grant-in-Aid (to support subject reimbursements and administrative costs for my summer research project), USD\$610, August 2007.

Principal Investigators: Edward Steinfeld, Geoff Fernie. Co-applicants: University of Buffalo team, Ontario Research and Technology Consortium team (including **Row, B.S.**). Funding organization: U.S. National Institute of Disability and Rehabilitation Research, Rehabilitation Engineering Research Centre on Universal Design (my role: ambulatory monitoring in cold weather, winter coat

design for older adults, monetary support includes half of my salary and operational funds over four years), November 2005

Principal Investigator: **Row, B.S.** Co-applicants: Fernie, G.R., Gignac, M. Funding organization: Canadian Institute of Health Research (CIHR) Interdisciplinary Training Initiative, Healthcare, Technology and Place Program Interdisciplinary Collaborative Enhancement (ICE) Research Grant (Designing cold weather clothing for older adults), CAD\$8,000, December 2004

Principal Investigator: **Row, B.S.** Co-applicants: Fernie, G.R., McKeever, P. Funding organization: CIHR Interdisciplinary Training Initiative, Healthcare, Technology and Place Program ICE Research Grant (Personnel support for writing a literature review), CAD\$3,500, April 2004

Principal Investigator: **Row, B.S.** Co-applicants: Fernie, G.R., McKeever, P. Funding organization: CIHR Interdisciplinary Training Initiative, Healthcare, Technology and Place Program ICE Research Grant (An interview and survey study of the effects of winter on the lives of older adults), CAD\$8,000, December 2003

Principal Investigator: **Row, B.S.** Funding organization: North Atlantic Chapter of the Soroptimist of the Americas, Ethel Lord Student Research Grant, competitive award for female graduate students focusing on gerontology research, USD\$2,500, April 2002

Principal Investigator: **Row, B.S.** Funding organization: International Society of Biomechanics Matching Dissertation Award, USD\$4,000, Spring 2001

Salary Support

Keck Foundation Fellowship for teaching enhancement, \$1,500 stipend, 2013. Principal Investigators: Stasinou Stavrianeas, Mark Stewart, Willamette University.

Summer Research Grant, Western Washington Univ., salary support, June to September, 2007 and June to September, 2008

Health Care, Technology and Place (CIHR Interdisciplinary Training Initiative at the University of Toronto) Postdoctoral Fellowship, salary support, September 2004 to August 2005

Health Care, Technology and Place (CIHR Interdisciplinary Training Initiative at the University of Toronto) Postdoctoral Fellowship, salary support, September 2003 to August 2004

Albert and Lorraine Kligman Fellowship, College of Health and Human Development, Penn State University, salary support, September 2002 to May 2003

National Institute on Aging Predoctoral Trainee Fellowship (Competition decided within the Gerontology Center, College of Health and Human Development, Penn State University), salary support, January 2000 to September 2002

Other

Gait and Clinical Movement Analysis Student Travel Award, travel reimbursement, April 2001

First Place, Penn State Kinesiology Department Graduate Exhibition Poster Award, USD\$200, March 2001

Unfunded Grant Proposals

Contributor to a University-wide proposal to the Sherman-Fairchild Scientific Equipment Program for the purchase of scientific instrumentation and equipment for several science departments at Willamette University, December 2012 – February 2013

Proposal for a Willamette University Atkinson Grant in support of summer research, Spring 2013.

PROFESSIONAL SERVICE and PARTICIPATION

Membership in Academic/Professional Societies

American Society of Biomechanics, 1999 to present
American College of Sports Medicine, 1999 to present
Northwest Chapter of American Society of Biomechanics, 2006 to present
International Society of Gait and Posture Research, 2007 to 2008
International Society of Biomechanics, 2001 to 2006
Gerontological Society of America, 2004 to 2006
Canadian Association of Gerontology, 2005 to 2006
Gait and Clinical Movement Analysis Society, 2000 through 2004

Service to Professional Academic Societies and Journals

Manuscript reviews:

- *Journal of Applied Biomechanics*, Summer 2009 to 2013, 1-2 articles per year
- *Research Quarterly in Exercise and Sport*, Spring/Summer 2008
- *Assistive Technology*, Winter 2006

Abstract reviews:

- The American Society of Biomechanics, national organization, Spring 2007, 2013, 2016
- The Northwest Biomechanics Symposium, regional organization, annually, Spring 2007-2016
- The Northwest Chapter of the American College of Sports Medicine, regional organization, Spring 2013

Awards committees:

- American Society of Biomechanics, contributing to the decisions of the Journal of Biomechanics Award and Emeritus ASB Fellow appointees, Spring 2015
- American College of Sports Medicine, Biomechanics Interest Group, Student Research and Student Travel Awards reviewer, Spring 2010, 2013
- American Society of Biomechanics, Travel Awards reviewer, Spring 2010

Session moderating:

- Session moderator, 'Slips, Trips, and Falls' oral presentation session, American College of Sports Medicine conference, May 2017
- Session moderator, 'Aging Gracefully' thematic poster session, American College of Sports Medicine conference, May 2014
- Session Co-chair, American College of Sports Medicine, May 2009, June 2010.
- Session Co-chair, North American Congress on Biomechanics, August 2008.
- Session Co-chair, Northwest Chapter of the American Society of Biomechanics, Spring 2007, 2010, 2011.

Organizational Roles in Conferences

- Co-moderator for a thematic poster session on ‘Balance and coordination’ at the Northwest Biomechanics Symposium, regional conference of the American Society of Biomechanics, University of Oregon, May 2017
- Co-host for Northwest Biomechanics Symposium, regional conference of the American Society of Biomechanics, Willamette University, May 2014
- Liaison with facilities, catering, technology groups, “NW Regional Chapter of the American College of Sports Medicine”, hosted by Exercise Science department at Willamette University, Spring 2013.
- Phase I Planning Committee Member, “Designing for the Cold”, a research and design exhibition in collaboration with The Design Exchange and the Health Care, Technology and Place program of the University of Toronto, May 2005 – November 2005.
- Facilitator, Designing for the Cold Panel Discussion, Health Care, Technology and Place Program annual workshop, University of Toronto, April 2005.
- Contributor, iDAPT Challenging Environment Assessment Laboratory (CEAL) user-group meeting, presentation regarding winter simulator needs, April 11-12, 2005.
- Facilitator, Health Care Technology and Place Program Seminar, University of Toronto, Oct. 2004.
- Planning Committee Member, Health Care, Technology and Place Annual Workshop, University of Toronto, Winter 2003-2004.
- Program Performance Evaluation Committee Member, Health Care, Technology and Place Annual Workshop, University of Toronto, Spring 2004.

Service to the University Community

- Participated in search committee for new Athletic Director, January – April, 2017.
- Faculty liaison to the Willamette University volleyball team, Spring 2014 through Fall 2014.
- Taught one week of our department’s offering for the Tokyo International University of America summer class, June 2013, 2014, 2016, two weeks in 2017.
- Collins 4th floor building captain for emergency evacuations, involves communicating plan for evacuation routes with Collins and Olin inhabitants and providing leadership during evacuations.
- Served on Willamette University Institutional Review Board, 2013-present.
- Presented my research at WU Alumni event in Portland, Summer 2014.
- Represented EXSCI on faculty panel at writing center, April 3, 2014.
- Participated in search committee for our Exercise Science faculty position, January – March, 2014.
- Presented on ‘Bodies in Motion: Behind the Curtain’ before a WU dance performance, connecting the academics of Kinesiology with the dance the audience would observe in the performance, Fall 2013.
- Service as building captain for building evacuation and emergencies, Fall 2013 to present.
- Panel co-moderator for Student Scholarship Recognition Day, Willamette University, Spring 2012, 2013, 2014
- Represented the Exercise Science department on the search committee for the Class of ’59 Visiting Assistant Professor position in Applied Statistics, Willamette University, Spring 2013.
- Served as thesis committee member to 15 WWU master’s students, chairing three of these committees.
- Advised 100+ students in the Movement Studies, Pre-Physical Therapy, Health and Fitness Specialist, and Pre-Health Care Occupations specializations of the Exercise Science major at Western Washington Univ.
- Member of the Emergency Management Committee (EMC), Western Washington University (WWU), Fall 2007 to Spring 2012

Member of Central Health & Safety Committee (CHSC), WWU, Spring 2007 to 2012, Vice Chair of the committee, Fall 2011 to Spring 2012

Leader of the Safety Committee of the Department of Physical Education, Health and Recreation, WWU, 2006 to Spring 2012; responsible for clarification of evacuation procedures, dissemination of emergency procedures and resources to faculty, organizing building wardens, development of evacuation signs for all areas within Carver building, and scheduling the viewing of safety videos with our Campus Police.

Served as a co-mentor for the Compass-2-Campus lab tours, a WWU initiative bringing 5th grade students to campus to get their sights set on college, Fall quarters 2009 - 2011.

Served as faculty representative during parent/prospective student panel during WWU Discovery Days for new and transferring students, Fall 2008, Winter 2009, Summer 2009, Summer 2010

Represented the Physical Education, Health and Recreation Dept. for Western Preview at WWU, Spring 2008
Western Scholars Invitational at WWU:

- Provided a presentation to high school seniors about PEHR, July 2009 and July 2010
- Taught a sample lecture/lab session (Electromyography 101) to high school seniors, July 2007

Assisted with course development, 'Personal Training Business and Communication' at WWU, Summer 2010

Member of WWU Blackboard Advisory Group, Fall/Winter 2006.

Served as a Pre-Healthcare Professions mock interview panel member for WWU Pre-Medicine students, Winter 2010, 2011.

Service to or Engagement with the Broader Community

Regularly lead biomechanics sessions for sample classes and demonstrations at Willamette University for:

- 1) Salem-area high school students, May 2013, 2014, 2016.
- 2) Salem-Keizer Indian Education Program, Summer 2013.
- 3) Presentation to 4th grade students with Willamette's Awesome Academic Adventures, Summer 2014.
- 4) National Biomechanics Day, involving a class of sophomores from a Woodburn high school in demonstrations by me and my student assistants to raise awareness of biomechanics as an area of study, Spring 2016.
- 5) Facilitated a data collection for the Algebra Academy conducted by McKay High School so that students could have real human-performance data (ground reaction forces during jumping and landing) to work with for their statistics unit, Fall 2015, 2016.

I and my two summer research students gave presentations in the community to give back to the research participants from our Summer 2013 research project: Willamette University Institute for Continued Learning, February 2014, and Capitol Manor retirement home, West Salem, March 2014.

Served at Marion Polk Food Share for Willamette University's Martin Luther King Day of Service, January 2014

Coordinated with the 50+ Senior Center in Salem, OR, to hold my ExSci 358 'Aging, Health, and Physical Activity' (Fall 2012) poster presentation center at the facility, in order to reach out to seniors in the community. Students presented their work at the senior center to each other and to senior center staff and participants.

Member of the Whatcom County, WA, Public Health Advisory Board, Summer 2011 to Spring 2012

Keynote speaker ("Balance and Exercise") for the Thurston County Falls Awareness and Prevention Day, Olympia, WA, September 2008

Participated in "PhUn Week" sessions with Dr. Lorrie Brilla in Squalicum High School's Freshman Biology classes, Bellingham, WA, discussion of physiology and interactive electromyography demonstration to teach basic neuromuscular principles, November 2007 & 2008.

Organized laboratory tours and demonstrations for Ferndale, WA, High School students, including discussion and participation of our graduate students, February 2008 & 2009.

Other Administrative Contributions

- Contributions to Scholar's Week, Western Washington University: organized the guest speaker for the Kinesiology and Physical Education program, 2010 – 2011.
- Fellows' representative at the new research fellows' orientation meeting, Health Care, Technology and Place Program, University of Toronto, September 2005.
- Fellowship Application Review Committee, Health Care, Technology and Place Program, University of Toronto, January 2005 – March 2005.
- Contributor to the prospective research fellows' informational meeting, Health Care, Technology and Place Program, University of Toronto, February 2005.
- Kinesiology Graduate Student Association committee member, Penn State University, 2002.

MEDIA APPEARANCES AND CONTRIBUTIONS

- Highlighted in an interview by Dean Kahn, journalist with the Bellingham Herald in Bellingham, WA, regarding balance function in seniors: "WWU professor studies nuances of walking, balance for seniors" <http://www.onlinefast.org/wwutoday/taxonomy/term/2364>
- Contributed to the Western Washington University's College of Humanities and Social Sciences newsletter, telephone interview regarding my research with older adults, Spring/Summer 2011.
- Contributed to an article on the winter clothing research program at the Toronto Rehabilitation Institute for the "+6" Annual Report at the Toronto Rehabilitation Institute, telephone interview, October 2006.
- Contributed to article on my recent research project: "Understanding the Fear of Falling" for the "+6" Annual Report at the Toronto Rehabilitation Institute, telephone interview, February 2006.
- Toronto Rehab Magazine feature: "Snow, ice and brrrr...the COLD. Researchers explore practical ways to make life easier in winter." By Annie Atkinson, Winter 2006, Volume 6, Number 1, pages 8-9.
- Winter e-Newsletter contribution for the Center for Inclusive Design and Environmental Access, University of Buffalo, "Partners from the Ontario Rehabilitation Technology Consortium (ORTC) Present Research Findings on Reducing the Difficulties Associated with the Use of Winter Coats for Older Adults", February 2006.
- Interviewed by CTV National News in response to a Health Canada report as a representative of the Centre for Studies in Aging, and a researcher in the area of Healthy Aging, ('National Population Health Survey: Healthy Aging'), aired May 9, 2005.
- "The Good, The Bad, and The Niggly: What you should know about winter and your health." Article written for the Centre for Studies in Aging monthly newsletter for balance training research participants, November 2004 and December 2006.
- Spotlighted as a new researcher for the "+5" Annual Report at the Toronto Rehabilitation Institute, Spring 2004.
- Spotlighted for the Kligman Fellowship Promotional Video for the Dean's Office at the College of Health and Human Development, Penn State University, Spring 2003