



CURRICULUM VITAE  
**ROBERT D. CATENA**

**EDUCATION**

- |      |           |   |
|------|-----------|---|
| 2009 | POST-DOC. | HARVARD UNIVERSITY – Cambridge, MA<br>Occupational Biomechanics and Ergonomics<br>School of Public Health       |
| 2008 | PH.D.     | UNIVERSITY OF OREGON – Eugene, OR<br>Biomechanics<br>Department of Human Physiology                             |
| 2005 | M.S.      | UNIVERSITY OF OREGON – Eugene, OR<br>Biomechanics<br>Department of Exercise and Movement Science                |
| 2003 | B.S.      | University of Alaska, Fairbanks – Fairbanks, AK<br>Biological Sciences<br>Department of Biology and Wildlife    |
| 2003 | Minor     | University of Alaska, Fairbanks – Fairbanks, AK<br>Business Management<br>Department of Business Administration |

**PROFESSIONAL EXPERIENCE**

- |             |   |
|-------------|---|
| 2009 – Date | VECTOR SCIENTIFIC, INC. – <b>Torrance, CA</b><br><i>Biomechanist</i> <ul style="list-style-type: none"><li>Forensic biomechanics and analysis of injury mechanisms.</li></ul>   |
| 2008 – 2009 | HARVARD SCHOOL OF PUBLIC HEALTH - <b>Boston, MA</b><br>LIBERTY MUTUAL RESEARCH INSTITUTE FOR SAFETY - <b>Hopkinton, MA</b><br><i>Post-Doctoral Research Scientist</i> <ul style="list-style-type: none"><li>Conducted research into mechanisms for occupational injuries</li><li>Lead a graduate seminar on occupational injury</li></ul> |
| 2007 – 2008 | BIOMECHANICAL CONSULTING - <b>Eugene, OR</b><br><i>Assistant Biomechanist</i> <ul style="list-style-type: none"><li>Forensic biomechanics and analysis of injury mechanisms.</li></ul>  |
| 2004 – 2008 | UNIVERSITY OF OREGON - <b>Eugene, OR</b><br><i>Graduate Teaching Fellow – Department of Human Physiology</i> <ul style="list-style-type: none"><li>Conducted biomechanical research and consultations</li><li>Taught graduate and undergraduate courses in biomechanics and human anatomy</li></ul>                                       |

- 2001 – 2007 UNIVERSITY OF ALASKA, FAIRBANKS - **Fairbanks, AK**  
*Instructor – Alaska Summer Research Academy*
- Taught undergraduate and advanced high school level courses in biomedicine
- 2003 WARBELOW'S AIR AMBULANCE SERVICE - **Fairbanks, AK**  
*Medic*
- Medic for an Alaska rural air medical evacuation service
- 2002 – 2003 UNIVERSITY FIRE DEPARTMENT - **Fairbanks, AK**  
*Medic and firefighter*
- Professional firefighter and emergency medical technician 2 for an advanced life support department

### **JOURNAL PUBLICATIONS**

Catena RD, van Donkelaar P, Chou LS. (2009). Different gait tasks distinguish immediate vs. long-term effects of concussion. *Journal of NeuroEngineering and Rehabilitation*. 6:25.

Catena RD, Halterman CI, van Donkelaar P, Chou LS. (2009). Spatial orientation of attention and obstacle avoidance following concussion. *Experimental Brain Research*. 194(1):67-77.

Siu KC, Catena RD, Chou LS, van Donkelaar P, Woollacott MH. (2007). Effects of secondary task on obstacle avoidance in healthy young adults. *Experimental Brain Research*. 184(1):115-20.

Catena RD, van Donkelaar P, Chou LS. (2007). Altered balance control after concussion is better detected by attention tests during gait. *Gait and Posture*. 25(3):406-11.

Catena RD, van Donkelaar P, Chou L-S. (2007). Cognitive task effects on gait stability following concussion. *Experimental Brain Research*. 176(1):23-31.

### **CONFERENCE PUBLICATIONS**

Catena RD, DiDomenico A, Banks JJ, Dennerlein JT, (2009). Balance control during material handling over a slippery surface. American Society of Biomechanics 33<sup>rd</sup> meeting. Penn State University.

Catena RD, DiDomenico A, Banks JJ, Dennerlein JT, (2009). The effects of a load on balance during lateral load transfers. International Society for Posture and Gait Research XIX meeting. Bologna Italy.

Catena RD, van Donkelaar P, Chou LS, (2008). Conflict resolution task effects on gait balance after a concussion. Proceedings of the North American Congress on Biomechanics. University of Michigan.

Catena RD, Halterman CI, van Donkelaar P, Chou LS, (2007). Obstacle avoidance with varying ability to spatially orient attention following mild traumatic brain injury. Proceedings of the American Society of Biomechanics 31<sup>st</sup> meeting. Stanford University.

Catena RD, Halterman CI, van Donkelaar P, Chou LS, (2007). The relationship between spatial orientation of attention and obstacle crossing parameters following mild traumatic brain injury. International Society of Biomechanics XXI Meeting. Taipei, Taiwan.

Catena RD, Halterman CI, van Donkelaar P, Chou LS, (2007). Using attention to avoid obstacles following a concussion. Proceedings of the 2007 Northwest Biomechanics Symposium. University of Oregon.

Catena RD, Halterman CI, van Donkelaar P, Chou LS, (2007). The spatial orientation of attention during obstacle crossing following mild traumatic brain injury. Proceedings of the 12<sup>th</sup> annual Gait & Clinical Movement Analysis meeting. Springfield, Massachusetts.

Catena RD, van Donkelaar P, Chou LS, (2006). Different gait paradigms distinguish immediate vs. long-term effects of concussion. Proceedings of the American Society of Biomechanics 30<sup>th</sup> meeting. Virginia Polytechnic Institute and State University.

Catena RD, van Donkelaar P, Chou LS, (2006). Attention tests can best detect reduced gait stability following concussion. Proceedings of the 2<sup>nd</sup> Annual Injury Biomechanics Symposium. The Ohio State University.

Catena RD, van Donkelaar P, Chou LS, (2006). Different gait paradigms distinguish immediate vs. long-term effects of concussion. Proceedings of the 2006 Northwest Biomechanics Symposium. University of British Columbia, p. 24.

Catena RD, van Donkelaar P, Parker TM, Osternig LR, Chou LS, (2005). Maintenance of gait stability in concussed college patients during dual tasks. International Society of Biomechanics XX Meeting and American Society of Biomechanics 29<sup>th</sup> Meeting. Cleveland, Ohio, p. 244.

Parker TM, Catena RD, Osternig LR, van Donkelaar P, Chou LS, (2005). Longitudinal study of gait stability after concussion. International Society of Biomechanics XX Meeting and American Society of Biomechanics 29<sup>th</sup> Meeting. Cleveland, Ohio, p. 244.

Catena RD, van Donkelaar P, Parker TM, Osternig LR, Chou LS, (2005). Secondary task effects on gait stability in concussed college patients. Proceedings of the X Gait & Clinical Movement Analysis Society Meeting. Portland, Oregon, p. 170-171.

### **RESEARCH GRANTS**

Lateral load transfers: balance during slippery and non-slippery conditions, *Liberty Mutual Research Institute for Safety*.

The effects of executive functioning on gait stability following mild traumatic brain injury, *American Society of Biomechanics*.

### **INVITED PRESENTATIONS**

Catena RD, Jones KO, Wheeler JB. (2010). Concussion awareness in ice hockey. Arvada Hockey Association Coaching Clinic. Arvada, CO USA.

Catena RD. (2009). Attention and gait performance following a concussion. Presented at the U.S. Army Natick Soldier Research Development and Engineering Center. Natick, MA USA.

Catena RD. (2008). Dynamic balance control following concussion: Paying attention to more crucial matters. Presented at Liberty Mutual Research Institute for Safety. Hopkinton, MA USA.

Catena RD. (2007). The gait and attention interaction following mild traumatic brain injury. Presented in HPHY 410/510: Neurophysiology of Concussions. University of Oregon, Eugene, OR USA.

### **CONFERENCES, SEMINARS AND SHORT COURSES**

- |      |  |
|------|--|
| 2009 | American Society of Biomechanics meeting – State College, Pennsylvania       |
| 2009 | NBCF Non-linear Analysis Summer Workshop – Omaha, Nebraska                   |
| 2009 | International Society for Posture and Gait Research meeting – Bologna, Italy |
| 2008 | Ergonomics and Human Factors workshop – Boston, Massachusetts                |
| 2008 | North American Congress on Biomechanics – Ann Arbor, Michigan                |
| 2007 | American Society of Biomechanics meeting – Palo Alto, California             |
| 2007 | Northwest Biomechanics Symposium – Eugene, Oregon                            |
| 2007 | Gait & Clinical Movement Analysis meeting – Springfield, Massachusetts       |
| 2006 | American Society of Biomechanics meeting – Blacksburg, Virginia              |
| 2006 | Injury Biomechanics Symposium – Columbus, Ohio                               |

- 2006 Northwest Biomechanics Symposium – Vancouver, Canada
- 2005 International Society of Biomechanics and American Society of Biomechanics joint meeting – Cleveland, Ohio
- 2005 Gait & Clinical Movement Analysis Society meeting – Portland, Oregon
- 2004 American Society of Biomechanics meeting – Portland, Oregon
- 2003 Emergency Medical Technician 2 – Fairbanks, Alaska
- 2002 Emergency Medical Technician 1 – Fairbanks, Alaska
- 2002 Firefighter Recruit Academy – Fairbanks, Alaska

#### **AWARDS AND HONORS**

- 2007 GCMAS Student Travel Award – Gait & Clinical Movement Analysis Society
- 2000 General Henry H. Arnold Education Grant – Air Force Aid Society
- 1999 University of Alaska Scholars Award – University of Alaska
- 1999 General Henry H. Arnold Education Grant – Air Force Aid Society

#### **PROFESSIONAL MEMBERSHIPS AND ACTIVITIES**

- 2010 – Present Open Journal of Sports Medicine reviewer
- 2009 – Present Society of Automotive Engineers reviewer
- 2008 – Present Ergonomics Journal reviewer
- 2008 – Present Workers Safety & Insurance Board of Ontario grant reviewer
- 2008 – Present International Society for Posture & Gait Research member
- 2008 – Present Contact Group for Slips, Trips & Falls member
- 2006 – Present American Society of Biomechanics member
- 2005 International Society of Biomechanics member**