Joseph A. Zeni, Jr., PT, PhD

Education and Training

2008-2009 **Post-Doctoral Researcher**

University of Delaware

Dept. of Physical Therapy, Newark, DE

Focus: Clinical outcomes research for patients after knee arthroplasty

2005-2008 PhD in Biomechanics and Movement Science

Concentration – Biomechanics

University of Delaware, Department of Mechanical Engineering, Newark, DE 19716

Focus: Joint loading and muscle coordination in patients with osteoarthritis

Mentor: Dr. Jill Higginson

2001-2003 Masters of Physical Therapy, With Honors

Quinnipiac University, Hamden, CT, 06518

1997-2001 Bachelor of Science in Health Science, With Honors

Quinnipiac University, Hamden, CT, 06518

Academic and Clinical Appointments

2009-present Assistant Professor

University of Delaware

Dept. of Physical Therapy, Newark, DE

Secondary appointment: Biomechanics and Movement Science Program

2005-2008 Research Assistant and Laboratory Coordinator

University of Delaware

Dept. of Mechanical Engineering, Newark, DE

2005-2008 Per Diem Physical Therapist

Rubin Institute for Advanced Orthopaedics

Baltimore, MD

2003-2005 Staff Physical Therapist

Rubin Institute for Advanced Orthopaedics

Baltimore, MD

Grants and Funding

Funded (current)

- 1. *Principal Investigator (Scholar): K12 HD055931-* Maximizing Functional and Biomechanical Outcomes after Total Knee Arthroplasty. *Funded* 9/1/11-8/31/15
- 2. **Principal Investigator: University of Delaware Research Foundation Grant (UDRF)** Functional and biomechanical impairments in patients undergoing total hip arthroplasty: A longitudinal analysis. *Funded* 6/1/13-5/31/15; \$35,000

3. Principal Investigator: University of Delaware Research Foundation (UDRF) - Research Experience for Undergraduates (REU). Funded 9/15/14-8/31/15; \$3,500

Funded Corporate Agreements

1. **Principal Investigator: Ongoing Care Solutions** - Bracing to improve function in patients with knee osteoarthritis. Funded 3/1/15-2/28/16; \$10,032

Funded (completed)

- Principal Investigator: Pilot Project Grant from NIH P20-RR16458- Comparison of Methods of Viscosupplementation on Function and Pain in Patients with Knee Osteoarthritis Funded 1/1/10-12/31/10; \$50,000
- 2. *Co-investigator: ARRA Supplemental Grant to NIH P20-RR16458-S1* Joint loading and the progression of osteoarthritis *Funded 9/1/09*

Ad-Hoc Reviewer (Journals)

- New England Journal of Medicine
- Physical Therapy Journal
- Clinical Orthopaedics and Related Research
- Journal of Orthopaedics and Sports Physical Therapy
- Arthritis Care and Research
- Osteoarthritis and Cartilage
- Clinical Biomechanics
- Journal of Biomechanics
- Physiotherapy Theory and Practice
- PT Now
- Spinal Cord Review
- Human Movement Science
- British Medical Journal
- Gait and Posture Journal
- Journal of Orthopedic Research
- Medicine and Science in Sports and Exercise
- Journal of Applied Biomechanics
- Medical Engineering and Physics Journal
- Complementary Therapies in Medicine Journal
- Journal of Rehabilitation Research and Development
- BioMed Central Musculoskeletal Disorders
- Archives of Physical Medicine
- PLOS ONE
- Saudi Medical Journal
- British Medical Bulletin
- Age
- Journal of Spinal Cord Medicine

Ad-Hoc Reviewer (Societies)

| 2014 | APTA Research Section CSM Abstract Reviewer |
|-------------|---|
| 2012 & 2013 | Swiss National Science Foundation Grant Reviewer |
| 2012 | Physicians' Services (PSI) Foundation Grant Reviewer |
| 2011 | Reumafonds, The Dutch Arthritis Association |
| 2011 | Bupa Foundation Medical Research Charity Grant Reviewer |

| University Service | |
|--------------------|---|
| 2010 | Orthopaedic Research Society Annual Meeting |
| 2011 | Israeli Scientific Foundation Grant Reviewer |
| 2011 | American Society of Biomechanics Annual Meeting |

| 2012-present | Coordinator, BMSC865 - BIOMS Seminar |
|--------------|---|
| 2011-present | Director, University of Delaware Gift of Life Program |
| 2009-present | Presenter, BIOMS Seminar, Annual |
| 2013 | Member, Search Committee, Imaging Laboratory Coordinator for DRI |
| 2012 | Member, Search Committee, Laboratory Coordinator II for DRI |
| 4/24/2012 | Invited Attendee, Library External Academic Review Committee Breakfast |
| 2012 | Program Chair, Center for Biomedical Engineering Research Annual Research |
| | Symposium |
| 2011-2012 | Member, Professional Behaviors Committee |

Professional Service

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|---------------------|---|
| 2015 | Ad hoc member, Neurological, Aging and Musculoskeletal Epidemiology (NAME) |
| | Study Section |
| 2015 | Moderator, Orthopaedic Section APTA, Combined Sections Meeting Platform |
| | Presentations |
| 2014-present | Chair, Early Career Researcher Special Interest Group, Research Section of the APTA |
| 2014 | Clinical Advisory Board for the Coulter Translational Partnership Program |
| 2014 | APTA representative for the AAOS Clinical Practice Guidelines Workgroup on |
| | Osteoarthritis of the Hip (Conservative and Surgical Treatment) |
| 2014 | Subject Matter Expert: APTA Orthopaedic Section Continuing Education Monograph: |
| | Biomechanics of Gait ISC 24.3 |
| 2014 | Moderator, Orthopaedic Section of the APTA, Combined Sections Meeting Platform |
| | Presentations |
| 2014 | APTA representative for the AAHKS Workgroup to Develop Quality Measures after |
| | Hip Arthroplasty |
| 2013 | Vice-Chair, Early Career Researcher Special Interest Group, Research Section of the |
| | APTA |
| 2013 | AAOS Review Panel: Non-Arthroplasty Treatment of Osteoarthritis of the Knee |
| | Appropriate Use Criteria |
| 2013 | Provided comments on the AHRQ Comparative Effectiveness of Physical Therapy for |
| | Knee Pain Secondary to Osteoarthritis report on behalf of the APTA. |
| 2013 | OARSI Working Group – Rehabilitation Clinical Trial Guidelines |
| 2012-present | CORRTnet Advisory Board |
| 2011 | Ad Hoc Member NIAMS AMSC Clinical Trial Review Committee |
| | |

Professional Membership

2000- American Physical Therapy Association

- Orthopaedic Section
 - o Member: External Grant Review Committee (2012-present)
- Research Section
 - o Chair: New Investigator Special Interest Group (2014)
 - o Abstract Review Committee (2014)
 - o Vice-Chair: New Investigator Special Interest Group (2013)
 - o Member: Biomechanics Special Interest Group
- 2007- American Society of Biomechanics
- 2009- Osteoarthritis and Research Society International

2009-2010 American Medical Writers Association 2008-2010 Orthopedic Research Society

Awards and Honors

- 2015 American College of Rheumatology Travel Award to Kathleen Madara (Advisor)
- 2014 Excellence in Teaching Award from the College of Health Science
- 2013 Nominee, Excellence in Undergraduate Academic Advising and Mentoring Award
- 2012 Medical Honoree, Delaware Arthritis Foundation Wilmington Arthritis Walk
- 2012 Researcher of the Month, College of Health Science, University of Delaware (June 2012)
- 2011 Comprehensive Opportunities in Rehabilitation Research Training (CORRT) Scholar
- 2010 Rose Excellence in Research Award: APTA
- 2010 Faculty Member for 3rd Annual Delaware Orthopaedic Symposium
- 2009 New Investigator Research Award (Finalist) Orthopaedic Research Society

Licensure and Certifications

1999-present CPR certification

2006-present Physical Therapist (Delaware) 2003-2011 Physical Therapist (Maryland)

Software and Hardware Experience

Microsoft Office, Adobe Pro, SPSS, EndNote X, LabView, Matlab, Motion Analysis Software (Cortex, EvaRT, OrthoTrak), Visual3D and Vicon Workstation. Significant experience using Motion Analysis Eagle-I cameras, Bertec treadmill with dual integrated forceplates, Noraxon and MotionLab electromyography systems, Vicon eight camera gait laboratory.

Teaching

PT Curriculum Course Instruction

| 2011-present | Course Instructor: Clinical Gross Anatomy (PHYT 622) |
|--------------|--|
| 2011-present | Course Instructor: Advanced Regional Anatomy (PHYT626) |
| 2011-present | Course Instructor and Coordinator: Functional Anatomy & Biomechanics (PHYT604) |
| 2012-present | Course Coordinator: Biomechanics and Movement Science Seminars (BMSC865) |
| 2007-2010 | Lead Laboratory Instructor: Gross Anatomy Lab (PHYT 622) |
| 2010 | Class Coordinator: Applied Physiology II (PHYT633) |
| 2010 | Class Coordinator: Rehabilitation (PHYT804) |

Independent Study Instruction

| 2012 | Movement Asymmetries in Inalviauals after Total Knee Replacement |
|------|--|
| 2012 | Clinical Research Methods |
| 2012 | Use of Interactive Gaming Systems for Rehabilitation |
| 2010 | Introduction to Biomechanics and Clinical Applications |
| 2009 | Application of Statistics in Clinical Research |
| | |

Guest Lecturer

| 2012 | Clinical Biomechanics (MEEG 482/682) |
|------|---|
| 2008 | Functional Anatomy and Biomechanics (PHYT604) |

Continuing Education

2005 Instructor: Contracture Management of the Lower Extremity

Publications

Published or In Press

- 1. Fitzgerald K, Hinman R, **Zeni J**, Snyder-Mackler L, Bennell K. (2015) *Design and conduct of clinical trials for rehabilitation in people with osteoarthritis: recommendations from a task force of the osteoarthritis research society international*. <u>Osteoarthritis and Cartilage</u>. In Press
- 2. Knarr B, **Zeni J**, Higginson J. (2015) *Change in knee contact force with a simulated change in body weight*. Computer Methods in Biomechanics and Biomedical Engineering. In Press
- 3. Pozzi F, Snyder-Mackler L, **Zeni J**. (2015) Relationship between biomechanical asymmetries during a step up and over task and stair climbing after total knee arthroplasty. Clinical Biomechanics. Jan;30(1):78-85. PMC4298478
- 4. Abujaber S, Pozzi F, Marmon A, Gillispie G, **Zeni J.** (2015) *Validity of the Nintendo Wii Balance Board to assess weight bearing asymmetry during sit-to-stand and return-to-sit task*. Clinical Biomechanics. In Press
- 5. Meira E, **Zeni J.** (2014) *Sports after total hip replacement: a review*. <u>International Journal of Sports</u> Physical Therapy. 9(6); 839-845.
- 6. **Zeni J,** Pozzi F, Abujaber S, Miller L. (2014) *Relationship between physical impairments and movement patterns during gait in patients with end-stage hip osteoarthritis*. <u>Journal of Orthopaedic Research</u>. E-published
- Logerstedt D, Zeni J, Snyder-Mackler L (2014) Sex differences in patients with different stages of knee osteoarthritis. <u>Archives of Physical Medicine and Rehabilitation</u>. Dec;95(12):2376-81. PMC4254053
- 8. **Zeni J**, Abujaber S, Pozzi F, Raisis L. (2014) *Strength and pain are related to different measures of functional ability in patients with end-stage hip osteoarthritis*. <u>Arthritis Care and Research</u>. Arthritis Care Res. 2014 Oct;66(10):1506-12 PMC Journal In Process
- 9. Alnahdi A, **Zeni J**, Snyder-Mackler L (2014) *Hip Abductor Strength Reliability and Association With Physical Function After Unilateral Total Knee Arthroplasty: A Cross-Sectional Study*. Physical Therapy. 94(8): 1154-1162
- 10. Marmon A, Pozzi F, Alnahdi A, **Zeni J.** (2013) *The validity of plantarflexor strength measures obtained through hand-held dynamometry measurements of force* <u>International Journal of Physical</u> Therapy. Dec;8(6):820-7. PMC3867075
- 11. Pozzi F, Snyder-Mackler, **Zeni J** (2013) *Physical exercise after knee arthroplasty: A systematic review of controlled trials*. European Journal of Physical and Rehabilitation Medicine. Dec;49(6):877-92. PMC4131551
- 12. **Zeni J,** Flowers P, Abujaber S, Pozzi F, Snyder-Mackler L. (2013) Biofeedback to promote movement *Symmetry retraining after knee arthroplasty replacement: A feasibility study*. <u>JOSPT</u> Oct;43(10): 715-726 doi:10.2519/jospt.2013.4657 PMC4072454
- 13. Vallejo RB, Iglesias ME, **Zeni JA**, Thomas SJ. (2013) *Reliability and Repeatability of the Portable EPS-Platform Digital Pressure Plate System*, <u>J Am Podiatr Med Assoc</u>, May-Jun;103(3):197-203.
- 14. Marmon A, **Zeni J,** Snyder-Mackler L. (2013) *Perception and Presentation of Function in Patients with Unilateral Versus Bilateral Knee Osteoarthritis*. <u>Arthritis Care Res.</u> 2013 Mar;65(3):406-13. doi: 10.1002/acr.21825 PMC3537858
- 15. McGinnis K, Snyder-Mackler L, **Zeni J**. (2013) *Dynamic joint stiffness and co-contraction in subjects after total knee arthroplasty*. Clin Biomech. Feb;28(2):205-10. PMC3604158
- 16. Yoshida Y, **Zeni J**, Alnahdi A, Snyder-Mackler L. (2012) *Do patients achieve normal gait patterns 3 years after total knee arthroplasty?* Dec;42(12):1039-49. doi: 10.2519/jospt.2012.3763.
- 17. Bade M, Stevens-Lapsley J, **Zeni J**, Snyder-Mackler L. (2012) *Predicting Poor Physical Performance after Total Knee Arthroplasty*. <u>Journal of Orthopaedic Research</u>. 30(11):1805-10 doi: 10.1002/jor.22140. PMC3417156

- 18. Alnadhi A, **Zeni J**, Snyder-Mackler L. (2012) *Muscle Impairments in Patients with Knee Osteoarthritis*. <u>Journal of Sports Health: A Multidisciplinary Approach</u>. 4(4): 284-292. DOI: 10.1177/1941738112445726 PMC3435919
- Knarr B, Zeni J, Higginson JS. (2012) Comparison of electromyography and joint moment as indicators of co-contraction. <u>Journal of Electromyography and Kinesiology</u>. Aug;22(4):607-11 PMC3506260
- 20. McClelland JA, **Zeni**, **JA**, Haley R, Snyder-Mackler L. (2012) Functional and Biomechanical Outcomes After Using Biofeedback for Retraining Symmetrical Movement Patterns After Total Knee Arthroplasty: A Case Report. <u>Journal of Orthopaedic and Sports Physical Therapy</u>. 42(2):135-144. doi:10.2519/jospt.2012.3773 PMC3619425
- 21. Nazarian DG, **Zeni J**. (2012) *Management of a pelvic mass following a worn uncemented total hip arthroplasty*. Feb;27(2):323.
- 22. Hartigan EH, **Zeni J Jr**, Di Stasi S, Axe MJ, Snyder-Mackler L. (2012) *Preoperative Predictors for Non-Copers to Pass Return to Sports Criteria After ACL Reconstruction*. <u>J Appl Biomech</u>. Aug;28(4):366-73. PMC3596873
- 23. Alnahdi A, **Zeni J**, Snyder-Mackler L. (2011) *Gait after unilateral total knee arthroplasty: Frontal plan analysis*. <u>Journal of Orthopaedic Research.</u> May;29(5):647-52. doi: 10.1002/jor.21323. PMID: 21184513. PMC3754839
- 24. **Zeni J** and Higginson, JS. (2011) *Knee osteoarthritis affects the distribution of joint moments during gait*. The Knee. Jun;18(3):156-9. doi:10.1016/j.knee.2010.04.003 PMC2970742
- 25. Mizner R, Petterson S, Clements K, **Zeni J**, Irrgang J, Snyder-Mackler L. (2010) *Measuring Functional Improvement after Total Knee Arthroplasty Requires both Performance-Based and Patient-Report Assessments: A Longitudinal Analysis of Outcomes*. <u>Journal of Arthroplasty.</u> Aug;26(5):728-37. PMC3008304
- 26. **Zeni J**, Snyder-Mackler, L. (2010) Clinical predictors of elective total joint replacement in persons with end-stage knee osteoarthritis. <u>BMC Muscloskeletal Disorders.</u> 86(11): doi:10.1186/1471-2474-11-86; PMC287765
- 27. **Zeni J**, Snyder-Mackler, L. (2010) *Pre-operative predictors of stair climbing ability after total knee replacement*. <u>Journal of Bone and Joint Surgery</u>. 92: 1130-1136 doi:10.2106/JBJS.I.00299 PMC2859903
- 28. **Zeni J** and Higginson, JS. (2010) *Gait parameters and stride-to-stride variability during familiarization to walking on a split-belt treadmill*. Clinical Biomechanics. 25(4): 383-386 doi:10.1016/j.clinbiomech.2009.11.002 PMC2847055
- 29. **Zeni J**, Snyder-Mackler, L. (2010) *Most Patients Gain Weight in the Two Years After Total Knee Arthroplasty: Comparison to a Healthy Control Group.* Osteoarthritis and Cartilage. 18(4): 510-514 doi:10.1016/j.joca.2009.12.005; PMC2846226
- 30. **Zeni J**, Snyder-Mackler, L. (2010) Early Post-operative function predicts long term outcomes after total knee replacement: The importance of contralateral limb strength. Physical Therapy Journal. 80(1): 43-54 doi:10.2522/ptj.20090089. (**Rose Excellence in Research Award Paper**) PMC2802824
- 31. **Zeni J**, Rudolph K and Higginson JS. (2010) *Alterations of quadriceps and hamstring coordination is present in persons with medial compartment knee osteoarthritis*. <u>Journal of Electromyography and Kinesiology</u>. 20(10): 148-54. <u>doi:10.1016/j.jelekin.2008.12.003</u> PMC2827305
- 32. **Zeni J**, Snyder-Mackler, L. (2009) *Clinical outcomes following simultaneous bilateral knee replacement: A two year prospective study.* <u>Journal of Arthroplasty.</u> 25 (4), 541-546 doi:10.1016/j.arth.2009.02.016 PMC2876215
- 33. **Zeni J** and Higginson, JS. (2009) *Dynamic knee joint stiffness in persons with a progressive increase in severity of knee osteoarthritis*. Clinical Biomechanics. 24(4): 366-71. doi:10.1016/j.clinbiomech.2009.01.005 PMC2696188
- 34. **Zeni J** and Higginson, JS. (2009) *Differences in gait parameters between healthy subjects and persons with moderate and severe knee osteoarthritis: A result of altered walking speed? Clinical Biomechanics* 24(4): 372-8. doi:10.1016/j.clinbiomech.2009.02.001 PMC2715920

35. **Zeni J**, Richards JG, Higginson JS (2008). *Two simple methods for determining gait events during treadmill and overground walking using kinematic data*. Gait Posture 27(4): 710-4. PMC2384115

Letters

1. **Zeni J**. (2013) Evidence supports supervised physical therapy programs after TKA. In Response to: Comparing Conventional Physical Therapy With Neuromuscular Electrical Stimulation After TKA. Orthopaedics. 36(7): 495-496.

Non-Peer Reviewed Publications

1. **Zeni J.** (2013) Using movement retraining to potentially improve long-term outcomes after total knee replacement. GeriNotes, the clinical magazine of the APTA Geriatric Section

Invited Presentations

- 1. **Zeni J**. *Biomechanical Perspective on Physical Therapy Management of Knee Osteoarthritis with Gait Re-training*. 3rd Annual Orthopaedic Section Meeting. Scottsdale, Arizona, May 14 16, 2015
- 2. **Zeni J.** Special Considerations for Sports Participation for those with Osteoarthritis. American College of Rheumatology/Association of Rheumatology Health Professionals Annual Meeting. Boston, MA 11/16/14
- 3. **Zeni J**. *Successfully obtaining early career funding*. American College of Rehabilitation Medicine Annual Meeting. Toronto, Canada. 10/7/14
- 4. **Zeni J.** *Can we prevent secondary osteoarthritis? DRI Arthritis Symposium.* STAR Campus, Newark DE, 5/30/2014
- 5. **Zeni J**. *Strategies to reduce secondary osteoarthritis*. Presentation at the Center for Biomechanical Engineering Research Industry Advisory Board Meeting. 5/15/14
- 6. Field-Fote E, Craik R, Hall C, Zeni J, Maxwell J. Why didn't they like my grant proposal or manuscript? A discussion on how to interpret and respond to reviewers' comments. APTA Research Section Proposal, on behalf of the Early Career Researchers Special Interest Group. Accepted for Combined Section Meeting, Las Vegas, NV 2014
- 7. Logerstedt D, Willy R, Reinold M, Lorenz D, **Zeni J**. Put me in, Coach. I am ready to play!? The decision for safe clearance for return to sports. APTA Sports Section Proposal. Accepted for Combined Sections Meeting, Las Vegas, NV 2014.
- 8. **Zeni J (Session Lead)**, Logerstedt D, Snyder-Mackler L, Stevens-Lapsley J, Bade M, Baker E. *Hot Off the Press: Incorporating Evidence-Based Practice into the Continuum of Care after Total Joint Replacement*. APTA Orthopaedic Section Proposal, Combined Sections Meeting. San Diego, CA 2013.
 - o **Zeni** Bringing the research to your clinic: Standardizing outcome metrics using the Delaware Osteoarthritis Profile
 - o **Zeni** Life after therapy: Permanent lifestyle modifications after joint replacement
- Zeni J (Session Lead), Snyder-Mackler L, Hicks G, Archer K, Logerstedt D. Developing an Orthopaedic Research Agenda for Early Investigators. APTA Research Section Proposal, on behalf of the Early Career Researchers Special Interest Group. Combined Sections Meeting. San Diego, CA 2013.
 - **Zeni** Developing community partnerships and opportunities for research in the orthopaedic clinic
 - o **Zeni** *Matching your research with funding sources*
- 10. **Zeni J.** *Keep it Moving: Can We Reduce the Need for Another Joint Replacement.* Arthritis Foundation Exposition, Lewes DE 11/13/2012.
- 11. **Zeni J**. *Clinical Challenges and Rehabilitation Approaches to Manage Primary and Secondary OA*. Arthritis Foundation Regional Board Meeting Reception. Newark DE 2012

- 12. **Zeni J**. *Rehabilitation after TKA: What do we know and where are we going?* Rose Award Lecture at the 2011 APTA Combined Sections Meeting. New Orleans, LA
- 13. **Zeni J.** *Community Application of the Delaware Osteoarthritis Profile*. 3rd Annual Delaware Orthopaedic Symposium Continuing Education Programming. Newark DE 2011

Abstract Presentations

- 1. **Zeni J**, Abujaber S, Pozzi F. *Are Changes in Clinical Impairments Related to Improvements in Function after Total Hip Arthroplasty?* Platform presentation at APTA CSM 2015, Indianapolis, IN
- 2. Pozzi F, Snyder-Mackler L, **Zeni J**. *Effectiveness of a progressive strengthening rehabilitation protocol in restoring function one year following total knee arthroplasty*. Platform Presetnation at CSM 2015; Indianapolis, IN, USA.
- 3. Pozzi F, Abujaber S, Fenstermacher S, **Zeni J**. *Relationship between functional performance and falls in female patients with end stage hip osteoarthritis*. World Congress of the Osteoarthritis Research Society International (OARSI); Seattle, USA.
- 4. **Zeni J,** Miller L, Pozzi F, Abujaber S. *Clinical impairments underlying abnormal frontal plane biomechanics in persons with end-stage hip osteoarthritis*. World Congress of the Osteoarthritis Research Society International (OARSI) 2015; Seattle, USA.
- 5. Pozzi F, Abujaber S, **Zeni J.** *Preoperative predictors of postoperative function in individuals undergoing total hip arthroplasty*. Poster presentation at the World Congress of the Osteoarthritis Research Society International (OARSI) 2014; Paris, France.
- 6. **Zeni J**, Miller L, Pozzi F, Abujaber S. *Clinical impairments underlying abnormal frontal plane biomechanics in persons with end-stage hip osteoarthritis*. Poster presentation at the World Congress of the Osteoarthritis Research Society International (OARSI) 2014; Paris, France.
- 7. **Zeni J**, Abujaber S, Pozzi F, Raisis L. *Pain and strength are related to different measure of functional ability in patient with hip OA*. Poster presentation at the Arthritis State of the Science meeting; Pentagon City, VA, USA.
- 8. **Zeni J**, Abujaber S, Pozzi F. *Strength and pain are related to different measures of disability in patients with hip OA*. Platform presentation at APTA CSM 2014, Las Vegas, NV
- 9. Abujaber S, **Zeni J**. *Muscle strength and pain differentially influence functional ability after total hip arthroplasty*. Poster presentation at CSM 2014, Las Vegas, NV
- 10. Pozzi F, Abujaber S, **Zeni J**. *Biomechanical asymmetries during gait in individuals before and three months after unilateral total hip arthroplasty*. Poster presentation at the 37th Annual Meeting of the American Society of Biomechanics (ASB); Sept. 2013, Omaha, NE, USA
- 11. Flowers P, Snyder-Mackler L, **Zeni J**. *Limb asymmetries during gait in patients after TKA*. Platform presentation at the American Society of Biomechanics Annual Meeting. September 4-7, 2013; Omaha NE
- 12. Abujaber S, Marmon A, **Zeni J**. *Visual feedback improves movement symmetry during sit to stand*. American Society of Biomechanics Annual Meeting. September 4-7, 2013; Omaha NE
- 13. Pozzi F, Abujaber S, Flowers P, **Zeni J**. *Lower limb strength and gait biomechanics of individuals with end-stage hip osteoarthritis*. Poster presentation at the annual World Congress of the Osteoarthritis Research Society International (OARSI); Philadelphia, USA. Osteoarthritis and Cartilage. 2013; 21(S): S106-107.
- 14. **Zeni J**, Snyder-Mackler L, Axe M. *Comparative effectiveness of two hyaluronic acid formulations on perceived functional performance*. Poster presentation at the annual World Congress of the Osteoarthritis Research Society International (OARSI); Philadelphia, USA. Osteoarthritis and Cartilage 21, S300-S3012013

- 15. Abujaber S, Marmon A, **Zeni J**. *Improvements in biomechanical symmetry are related to improved functional performance following total knee arthroplasty*. OARSI Annual meeting. April 18-21, 2013; Philadelphia PA
- 16. Logersedt D, **Zeni J**, Snyder-Mackler L. *Different recovery groups 2 years after total knee arthroplasty*. Poster presentation at the annual World Congress of the Osteoarthritis Research Society International (OARSI); Philadelphia, USA.
- 17. Pozzi F, **Zeni J**, Cheadle K, Snyder-Mackler L. *Functional outcomes following a novel rehabilitation protocol to promote symmetrical loading after total knee arthroplasty*. Platform presentation at the American Physical Therapy Association, Combined Section Meeting, Jan 2013; San Diego, CA, USA.
- 18. Flowers P, Abujaber S, Pozzi F, Snyder-Mackler L, **Zeni J**. *Biofeedback to promote movement symmetry after TKA: A pilot and feasibility study*. Delaware Orthopaedic Symposium. October 27, 2012; Newark DE
- 19. Abujaber S, Pozzi F, Marmon A, Aukamp C, Rombach S, Snyder-Mackler L, **Zeni J**. *Outcomes after total knee arthroplasty: Community partnership between the University of Delaware and Christiana Care Health System*. Delaware Orthopaedic Symposium. October 27, 2012; Newark DE
- 20. **Zeni J**, Axe M, Snyder-Mackler L. *Effect of intra-articular hyaluronic acid injection on perceived functional performance: Comparison of two formulations*. Delaware Orthopaedic Symposium. October 27, 2012; Newark DE
- 21. Pozzi F, Flowers P, Abujaber S, **Zeni J.** *Total hip replacement outcome study: Community partnership between the University of Delaware and Christiana Care Center for Advanced Joint Replacement.* Delaware Orthopaedic Symposium. October 27, 2012; Newark DE
- 22. Alnahdi AH, **Zeni J**, Snyder-Mackler L. *The effect of progressive strengthening programs on sit to stand mechanics after unilateral total knee arthroplasty: Preliminary results of a randomized clinical trial.* APTA Combined Sections Meeting 2012
- 23. Flowers P, **Zeni J**, McClelland J, Logerstedt D, Snyder-Mackler L. *Novel Intervention Improves Contralateral Knee Function Post-Total Knee Arthroplasty*. Poster presentation. ORS Meeting 2012, San Francisco. February 3, 2012.
- 24. Logersedt D, **Zeni J**, Snyder-Mackler L. *Disease severity and sex differences in patients with knee osteoarthritis*. Poster presentation. OARSI annual meeting 2012. Barcelona, Spain. April 26-29, 2012.
- 25. Logersedt D, **Zeni J**, Snyder-Mackler L. Functional performance and patient-reported knee function one year after total knee arthroplasty. Oral presentation. 15th ESSKA 2012. Geneva, Switzerland. May 2, 2012.
- 26. **Zeni J,** Logerstedt D, Abujaber S, Flowers P, Pozzi F, Snyder-Mackler L. *Rehabilitation to reduce secondary osteoarthritis after total knee arthroplasty*. OARSI Annual Meeting, Barcelona 2012
- 27. Alnahdi A, **Zeni J**, Snyder-Mackler L. *The Effect of Progressive Strengthening Programs on Function and Gait Mechanics after Unilateral Total Knee Arthroplasty: A Randomized Clinical Trial*. OARSI Meeting 2012, Barcelona, Spain. April 26-29, 2012.
- 28. Alnahdi A, **Zeni J**, Snyder-Mackler L. *Quadriceps Inhibition and Physical Function After Unilateral Total Knee Arthroplasty*. ESSKA Meeting 2012, Geneva, Switzerland. May 2-5, 2012.
- 29. Alnahdi A, **Zeni J**, Snyder-Mackler L. *Hip Abductors Strength: Reliability and Association With Physical Function after Unilateral Total Knee Arthroplasty*. ESSKA Meeting 2012, Geneva, Switzerland. May 2-5, 2012.
- 30. Pozzi F, Alnhadi A, Snyder-Mackler L, **Zeni J**. *Loading patterns during a step-up-and-over task in individuals following total knee arthroplasty*. Poster presentation at the 36th Annual Meeting at of the American Society of Biomechanics (ASB); Gainesville, FL, USA. Proceedings of the 36th Annual ASB Meeting August 2012
- 31. Abujaber S, Marmon A, **Zeni J**. *Visual feedback improves movement symmetry during sit to stand.* Poster presentation at the 36th Annual Meeting at of the American Society of Biomechanics (ASB); Gainesville, FL, USA. Proceedings of the 36th Annual ASB Meeting August 2012

- 32. **Zeni J,** Beeson H, Axe M, Snyder-Mackler. *Comparison of two hyaluronic acid formulations on functional outcomes in patients with knee osteoarthritis*. OARSI Annual Meeting, San Diego 2011
- 33. **Zeni J,** McClelland J, Snyder-Mackler. *A novel rehabilitation paradigm to improve movement symmetry and maximize long-term outcomes after total knee arthroplasty*. OARSI Annual Meeting, San Diego 2011
- 34. Alnahdi A, McClleland J, **Zeni J,** Snyder-Mackler L. Quadriceps Strength and Gait after Unilateral Total Knee Arthroplasty. ORS Meeting 2011, Long Beach, CA.
- 35. McClelland J, **Zeni J**, Marmon A, Snyder-Mackler. *Quadriceps strength is the best predictor of unilateral balance test two years following total knee arthroplasty*. APTA Combined Sections Meeting, New Orleans 2011
- 36. Alnahdi A, **Zeni J**, Snyder-Mackler. *Interlimb loading differences during sit to stand task after TKA*. APTA Combined Sections Meeting, New Orleans 2011
- 37. **Zeni J**, Alnahdi A, McGinnis K, Snyder-Mackler L. *Normative Sample for the Delaware Osteoarthritis Profile in Patients Pre- and Post- Total Knee Arthroplasty*. APTA Combined Sections Meeting, New Orleans 2011
- 38. Marmon AR, **Zeni JA Jr**. Perception and Presentation of Function; Implications for Arthroplasty in Knee Osteoarthritis. ACSM National Conference, in Medicine & Science in Sports & Exercise., May 2011.
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