

Laura Thorp, MPT, PhD
email: lthorp@uic.edu

DOB: August 31, 1977

Citizenship: United States of America

Academic Appointments:

Clinical Associate Professor. University of Illinois, Chicago Campus. 7/2015-present
Department of Physical Therapy

Associate Professor. Rush University Medical Center, 2014-6/2015
Department of Anatomy and Cell Biology

Assistant Professor. Rush University Medical Center, 2008-2014
Department of Anatomy and Cell Biology

Conjoint Appointment in the Department of Internal Medicine 2008-2015
Section of Rheumatology

Instructor. Rush University Medical Center, 2006-2008
Department of Anatomy and Cell Biology

Education:

Rush University Medical Center, Chicago IL, Ph.D. in Anatomy 2006

Thesis Title: *The Relationship between Structure and Function in Knee Osteoarthritis: A Mechanical Perspective Utilizing Gait Analysis*

The University of Scranton, Scranton, PA, Masters of Physical Therapy 2000
The University of Scranton, Scranton, PA, BS in Health Sciences 1999

Certification and Licensure:

Licensed Physical Therapist in Pennsylvania (PT013539L) 2000-present

Awards and Honors:

- Janet Riddle Action Research Scholars Program at the Center for the Advancement of Teaching Excellence (UIC) 9/2024-5/2025
- Excalibur Award for Teaching Excellence, College of Applied Health Sciences (UIC) 5/2024
- Scholars for Teaching Excellence Faculty Fellowship (STEFF) Program (UIC) 8/23-5/23
- Excalibur Award for Teaching Excellence, College of Applied Health Sciences (UIC) 5/2022
- UIC Teaching Recognition Teaching Recognition Program Award 12/2019
- Excalibur Award for Teaching Excellence, College of Applied Health Sciences 5/2018
- Susan K Campbell Award for Academic Teaching Excellence 5/2017
- Spring 2017 Teaching Scholar: Center for the Advancement of Teaching and Learning Communities 1/2017-5/2017

- University Physician Assistant Studies Program Academic Training Excellence Award 2015
- Faculty Greeter Rush Medical College Orientation 2014
- Rush University Physician Assistant Studies Program Academic Training Excellence Award 2014
- Rush University Physician Assistant Studies Program Academic Training Excellence Award 2013
- Brainard Award for Excellence in Teaching in the Basic Sciences (Rush Medical College) 2011
- Outstanding Student Publication Award, Rush University Medical Center 2006
- Sigma Xi Graduate Student Research Award 2006
- Foundation for Physical Therapy Promotion of Doctoral Studies (PODS II) 2004-2005 Scholarship

Professional Memberships:

- American College of Rheumatology: Association of Rheumatology Health Professionals (ARHP) 2007-2016
- American Association of Clinical Anatomists (AACA) 2006-present
- American Association of Anatomists (AAA) 2023-present

Past Editorial and Peer Review:

- **Thieme Publishing: Dissector Advisory Board** 2013-2015
Serve in an advisory role consulting with the publishing company on an as needed basis to make improvements to their dissection guide for human anatomy.
- **Journal Reviewer:** Clinical Biomechanics, Osteoarthritis and Cartilage, American Journal of Physical Medicine and Rehabilitation, Arthritis Research and Care, Journal of Orthopedic Research, Rheumatology Reports, Arthritis and Rheumatism, Anatomical Sciences Education
- **Text Book Reviewer:** Doody Publishing

Teaching Experience:

The University of Illinois, Chicago Campus

- **Department of Physical Therapy:**
 - **PT 603 Human Gross Anatomy**
(Course Director/Lecturer/Laboratory Instructor) 2015-present
 - Responsible for all aspects course administration including preparation of course materials, scheduling, preparation of examinations, delivery of lectures, instruction in laboratories, and review of courses upon completion
 - 36 Lecture Hours
 - 77 Laboratory Hours
 - 12 hours of Examinations
 - **PT 604 Human Gross Anatomy**
(Course Director/Lecturer/Laboratory Instructor) 2016-present

- Responsible for all aspects course administration including preparation of course materials, scheduling, preparation of examinations, delivery of lectures, instruction in laboratories, and review of courses upon completion
- 39 Lecture Hours
- 30 Laboratory Hours
- 8 hours of Examinations
- **Continuing Education Courses for Physical Therapists** 2019-present
 - Clinical Anatomy of the Upper Limb and Back (16 CEU)
 - Clinical Anatomy of the Lower Limb and Pelvis (16 CEU)

Rush University Medical Center

- **Rush Medical College:**
 - **Block Administrator Musculoskeletal Block (RMD 512)** 2011-2014
 - Responsible for all aspects course administration including course materials, scheduling, preparation of examinations, securing course faculty, and review of courses upon completion (12% FTE)
 - **Co-Block Administrator Nervous System/Head and Neck Block (RMD 516)** 2011-2015
 - Responsible for all aspects course administration including course materials, scheduling, preparation of examinations, securing course faculty, and review of courses upon completion (6% FTE)
 - **Discipline Director for Gross Anatomy for the Musculoskeletal, Cardiovascular/Respiratory, and Nervous System/Head and Neck Blocks (RMD 512, 513, 516)** 2010-2015
 - Responsible for management of gross anatomy content of these courses, including management of educational materials and examination materials, oversight of gross anatomy teaching faculty as well as administration and grading of laboratory-based exams (14% FTE in total)
 - **Lecturer for Gross Anatomy for the Musculoskeletal, Cardiovascular/Respiratory, and Nervous System/Head and Neck Blocks (RMD 512, 513, 516)** 2010-2015
 - 38 Lecture hours
 - **Laboratory Instructor for the Musculoskeletal, Cardiovascular/Respiratory, Gastrointestinal, Genitourinary and Nervous System/Head and Neck Blocks (RMD 512, 513, 514, 515, 516)** 2010-2015
 - 138 Laboratory hours (116 gross anatomy, 22 Neuroanatomy)
 - **Co-Course Director Medical Gross Anatomy** 2007-2010
 - Human Anatomy I and II (ANA 471, 472)
 - 33 Lecture hours, 110 Laboratory hours
 - **Session co-leader of the “Looking at the Chest” Imaging and**

Anatomy module for the M3 CRASH

- 6 hours of small group sessions 2008-2014
- **Lecturer for Physical Medicine and Rehabilitation Residency Program** 2012-2014
 - 8 hours of Neuroanatomy Lectures
 - 4 hours of Biomechanics Lectures

• **Rush College of Nursing**

- **Course Director Introduction to Neurobiology (ANA 500)** 2011-2014
- 13 Lecture hours, 10 Laboratory hours
- Lecturer /Laboratory Instructor Introduction to Neurobiology (ANA 500)** 2006-2010
 - 2 Lecture hours, 10 Laboratory hours

• **Rush University College of Health Sciences:**

- **Laboratory Instructor Anatomy and Physiology of the Speech System (CDS 537)** 2008-2014
 - 20 Laboratory hours
- **Co-Course Director Human Gross Anatomy (PAS 510)** 2010-2014
 - Physician Assistant Program
 - 24 Lecture Hours, 48 Laboratory hours

• **Rush University Graduate College**

- **Course Director Gross Anatomy of the Musculoskeletal System (BMC 505)** 2012-2014
 - 13 Lecture Hours, 39 Laboratory Hours
- **Lecturer Functional Cell Biology GCC 503** 2014-2015
 - 2.5 Lecture Hours

Visiting Professor. University of Medicine and Heath Sciences, St. Kitt's
 3/2009, 11/2009, 3/2010, 11/2010

- Invited Guest Lecturer and Laboratory Instructor for Medical Gross Anatomy

Mentoring

- Art Sifuentes, trainee in Anatomy lab (2020-present)
- Karim Elalfy, trainee in Anatomy lab (2016-2018)
- Advisor Doctorate of Physical Therapy Students (2016-present)
- Major advisor for Natalie Brounsuzian, MS student in the department of Anatomy and Cell Biology (2011-2013) Thesis Title: *The Role of Cadaveric Dissection in Development of Empathy in Medical Students*
- Co-Advisor for Christopher Ferrigno, PhD student in the Department of Anatomy and Cell Biology (September 2011-2015)
- Major advisor for Julia Daher MD/MS student in the department of Anatomy and Cell Biology supported by NIH training grant T32 AR052272 (2009-2010) Thesis Title: *Hip Muscle Training and Its Effects on Activity Level and Knee Joint Loads in Medial Compartment Knee Osteoarthritis*
- Major advisor for Adam Wilson, BS, MS student in the department of Anatomy and Cell Biology (2007-2009). Thesis Title: *Anatomy Education: Analysis of Instructional Methodologies*

- Mentor to Laura Bertrand, BS, a first year Rush Medical College student, for a summer research project supported by NIH training grant T32 AR052272 (2008) (Research Focus: Gait and Osteoarthritis)
- Mentor for Summer Faculty Development Course in Gross Anatomy Summer 2007
- Medical Student Advisor: Rush Medical College: 1st and 2nd year students 2010-Present
 - Advisors oversee approximately 30 students in the 1st and 2nd years of the curriculum, formally meeting with each group once or twice per quarter. Advisors offer one on one meetings once each year and offer support on an as needed basis (e.g. helping students find resources when they experience academic or personal difficulties, writing letters of recommendation).

Clinical Service:

- **Staff Physical Therapist.** 2000-2002
The John Heinz Institute for Rehabilitation Medicine, Dallas, PA

Medical Center/College Committee & Administrative Services:

The University of Illinois Chicago:

- Diversity and Inclusion Committee- Admissions Subcommittee 2022-present
- The Departmental Curriculum Committee 2016-present
- The Committee on Student Promotion and Professionalism 2017-present
 - Committee Chair (2017-2019 and 2024-2025)
 - Advisor/Past Chair role (2019-2020)
- AHS Classroom and Instructional Technology Committee 2017

Rush University:

- M1 Work group 2007-2015
 - This sub-committee of the Committee on Curriculum and Evaluation meets monthly and oversees the curriculum for the M1 year including course reviews and curricular changes. (3% FTE)
- Member Committee on Curriculum and Evaluation Rush Medical College 2007-2015
- Chair Elect (Vice Chair) Committee on Curricular Evaluation (CCE) 2011-6/2014
- Chair Committee on Curriculum and Evaluation (CCE) (10% FTE) 7/2014-6/2015
 - The Committee on Curriculum and Evaluation for Rush Medical College meets bimonthly and is charged with the CCE is charged with responsibility for and management of all RMC educational programs with respect to design and content.
- Vice Chair CCE Council for Rush Medical College 12/2011-6/2014
- Chair CCE Council for Rush Medical College (5% FTE) 7/2014-6/2015
 - The CCE Council is an advisory committee to the Committee on Curriculum and Evaluation which meets monthly. The council is charged with the comprehensive review and management of the Rush Medical College Curriculum and provides recommendations to the Committee on Curriculum and Evaluation based on that review. The council identifies common issues across the years and educational programs and facilitates communication between workgroups to enhancing vertical integration across the four years

- of the medical college curriculum.
- Chair's Advisory Committee Department of Anatomy and Cell Biology 2011-2013
 - This committee meets monthly and serves in advisory capacity to the chair of the department.
- Committee on Admissions (CoA) Rush Medical College 7/2012-6/2015
 - (Member and Interviewer)
 - The committee on admissions meetings monthly and admissions interviewers are required to complete a minimum of 20 interviews from approximately late September through March of a given academic year. Each week during the interview season, members of the CoA vote on interviewed candidates resulting in an average of 4-5 hours of effort per week.
- Co-Chair Educational Programs Subcommittee for 2011-2012
 - Liaison Committee on Medical Education Accreditation Site Visit
 - This committee lead completed the self-study process for the educational programs in preparation for the 2012 accreditation visit by the Liaison Committee on Medical Education. The committee met monthly to prepare the report on the educational Programs of Rush Medical College as part of the larger institutional self-study process.

Invited Presentations:

1. *Clinical Anatomy and Rehabilitation of Running Injuries.* Athletico Physical Therapy, Chicago, IL, August 2022 and February 2023.
2. *Anatomy and Biomechanics of the Hip Joint.* MOR Hip Symposium, Midwest Orthopedics at Rush University Medical Center, Chicago, IL, November 2014.
3. *Neuromuscular Training in Osteoarthritis.* American College of Rheumatology Annual Meeting. Chicago, IL, November 2011.
4. *Anatomy and Biomechanics of the Hip Joint.* MOR Hip Symposium, Midwest Orthopedics at Rush University Medical Center, Chicago, IL, November 2011.
5. *Knee Osteoarthritis: A Biomechanical Perspective Utilizing Gait Analysis.* University of Illinois Chicago: Department of Physical Therapy. Chicago, IL: October 2010.
6. *Osteoarthritis in Women.* Women's Athletic Club of Chicago. Chicago, IL; February 2009.
7. *Examining the Structure and Function of Knee Osteoarthritis through Gait Analysis:* Wheaton College, Wheaton, IL; October 2007.
8. *The Relationship between Structure and Function in Knee Osteoarthritis: A Mechanical Perspective Utilizing Gait Analysis:* AO Institute, Davos, Switzerland; March 2007

Invited Continuing Education Lectures:

1. **Clinical Anatomy and Rehabilitation of Running Injuries of the Hip.** Athletico Physical Therapy, Chicago, IL, August 2022, 1.5 hr continuing education lecture) Approximately 100

attendees.

2. **Clinical Anatomy and Rehabilitation of Running Injuries of the Ankle.** Athletico Physical Therapy, Chicago, IL, February 2023, 1.5 hr continuing education lecture) Approximately 100 attendees.
3. **Clinical Anatomy and Rehabilitation of Running Injuries of the Knee.** Athletico Physical Therapy, Chicago, IL, February 2024, 1.5 hr continuing education lecture) Approximately 100 attendees.
4. **Anatomy and Rehab Considerations of TMD and Cervicogenic Headache** Athletico Physical Therapy, Chicago, IL, July 2024 (1.5 hr continuing education lecture) Approximately 100 attendees.
5. **Clinical Anatomy and Biomechanics of the Hip.** Midwest Orthopedics at Rush Hip Symposium, Chicago, IL, September 2024. 1.5 hour continuing education lecture. Approximately 60 attendees.

Research Funding (Past):

- American College of Rheumatology Health Professional New Investigator Award:
 - Total Award: \$100,000
 - Role: Principal Investigator
 - Title: “An Analysis of the Effects of Exercise on A Biomechanical Risk Factor for Knee OA”
 - Funding Period: 2008-2011
- Chicago Chapter of the Arthritis Foundation Young Investigator Award
 - Total Award: \$60,000
 - Role: Principal Investigator
 - Title: “A Biomechanical Approach to Modify Risk Factors for Progression of Knee OA”
 - Funding Period: 2008-2011
- Rush University Medical Center-John H. Stroger Jr. Hospital of Cook County Collaborative Grant Award.
 - Total Award: \$10,000
 - Role: Principal Investigator
 - Title: “Bringing Anatomy to Life: Clinical Emergency Procedures Lab in Medical Gross Anatomy Education”
 - Funding Period: 2008-2009
- Foundation for Physical Therapy Promotion of Doctoral Studies (PODS II) Scholarship
 - Total Award: \$15,000
 - Funding Period: 2004-2005

Bibliography:

Peer Reviewed Manuscripts:

1. **Thorp LE** and Doubleday A. The anatomy lab as an early opportunity for reflection-based interprofessional education. *J Dent Education*. 2024 Sep 20. doi: 10.1002/jdd.13703.
2. Byram JN, Seifert MF, Brooks WS, Fraser-Cotlin L, **Thorp LE**, Williams JM, Wilson AB. Using generalizability analysis to estimate parameters for anatomy assessments: A multi-institutional study. *Anatomical Science Education*. 2017; 10(2):109-119.
3. Ferrigno C, Wimmer MA, Trombley RM, Lundberg HJ, Shakoor N, **Thorp LE**. A Reduction in the Knee Adduction Moment with Medial Thrust Gait is Associated with a Medial Shift in Center of Plantar Pressure. *Medical Engineering and Physics*, July; 38(7): 615-21, 2016.
4. Ferrigno C, Stoller I, **Thorp LE**, Shakoor N, Wimmer MA. The Feasibility of Using Augmented Auditory Feedback From a Pressure Detecting Insole To Reduce the Knee Adduction Moment: a Proof of Concept Study. *Journal of Biomechanical Engineering*, Feb 1; 138(2), 2016.
5. Shakoor N, Ladtke RH, Wimmer MA, Foucher KC, **Thorp LE**, Fogg LF, Block JA. Improvement in knee loading after use of specialized footwear for knee osteoarthritis: Results of a 6-month pilot investigation *Arthritis Rheum* 2013(PMID: 23575871).
6. **Thorp LE**, Orozco D, Block JA, Sumner DR, Wimmer MA. Activity Levels in Healthy Older Adults: Implications for Total Joint Arthroplasty. *ISRN Orthopedics*. 2012 Jan 1, 2012. (PMID: 23577274).
7. Shakoor N, Dua A, **Thorp LE**, Mikolaitis RA, Wimmer MA, Foucher KC, Fogg LF, Block JA. Asymmetric loading and bone mineral density at the asymptomatic knees of subjects with unilateral hip osteoarthritis. *Arthritis Rheum*. 2011 Dec; 63(12):3853-8. (PMID: 22127702).
8. Wilson, AB, Petty M, Williams JM, **Thorp LE**. An Investigation of Alternating Group Dissections in Medical Gross Anatomy. *Teaching and Learning in Medicine* 2011 Jan; 23(1):46-52. (PMID: 21240783).
9. Foucher KC, **Thorp LE**, Orozco D, Hildebrand M, Wimmer MA. Differences in Preferred Walking Speed in the Gait Laboratory Compared with the “Real World” after Total Hip Replacement. *Archives of Physical Medicine and Rehabilitation*. 2010 Sep; 91(9):1390-5. (PMID: 20801257).
10. **Thorp LE**, Wimmer MA, Foucher KC, Sumner DR, Shakoor N, Block J.A. The Biomechanical Effects of Focused Muscle Training on Medial Knee Loads in OA of the Knee: a pilot, proof of concept study. *Journal of Musculoskeletal and Neuronal Interactions* 2010 Jun; 10(2):166-73. (PMID: 20516634).
11. Wilson AB, Ross C, Petty M, Williams JM, **Thorp LE**. Bridging the Transfer Gap: Laboratory Combines Clinical Exposure and Anatomy Review. *Med Educ*. 2009 Aug; 43(8):790. (PMID: 19659493).

12. **Thorp LE**, Sumner DR, Wimmer MA, Block JA. The Relationship between Pain and Medial Knee Joint Loading in Mild Radiographic Knee Osteoarthritis. *Arthritis Research and Care* 2007 Oct; 57(7): 1254-60. (PMID: 17907291).
13. **Thorp LE**, Sumner DR, Block JA, Moisio KC, Shott S, Wimmer MA. Knee joint loading differs in individuals with mild versus moderate medial knee osteoarthritis. *Arthritis and Rheumatism* 2006 Dec; 54(12): 3842-9. (PMID: 17133592).
14. **Thorp LE**, Wimmer MA, Block JA, Moisio KC, Shott S, Goker B, Sumner DR. Bone mineral density in the proximal tibia varies as a function of static alignment and knee adduction angular momentum in individuals with medial knee osteoarthritis. *Bone* 2006 Nov; 39(5):1116-22. (PMID: 16782419).

Invited Book Chapters:

1. Carol Muehleman, **Laura E Thorp**, Tribological design of natural joints - an anatomical perspective, In: Encyclopedia of Tribology (Vol. 6), Wang Q.J., Chung Y.-W. (Eds), Springer, New York, 2013; pp. 3787-3793 Online: <http://link.springer.com/referencework/10.1007/978-0-387-92897-5>
2. **Laura E Thorp**, Markus A. Wimmer, Chapter 3: Biomechanics of the Natural Hip Joint, In: The Adult Hip, Volume 3: Hip Preservation Surgery, J. C. Clohisy, P. E. Beaulé, C. J. DellaValle (Eds.), Wolters Kluwer, Philadelphia, 2014; pp. 24-30.
3. **Laura E Thorp**. Chapter 15: Hip Anatomy, In: Hip Arthroscopy and Hip Joint Preservation Surgery, Shane Nho, MD, MS; Michael Leunig, MD; Christopher Larson, MD, Asheesh Bedi, MD; and Bryan Kelly, MD (Eds), Springer, New York, 2014 (ahead of print) http://link.springer.com/referenceworkentry/10.1007/978-1-4614-7321-3_113-1

Peer Reviewed Abstracts:

1. Ferrigno C, Wimmer MA, **Thorp LE**, Block JA, Lidtke RH, Shakoor N. Medializing Foot Center of Pressure with Flexible Shoes is Associated with a Medial Knee Load Reduction in Knee Osteoarthritis. Osteoarthritis Research Society International, Annual Meeting, April 2015.
2. Ferrigno C, Stollner IS, **Thorp LE**, Shakoor N. Wimmer MA. Using Auditory Feedback From Pressure Insoles to Lower Medial Knee Compartment Loads. Osteoarthritis Research Society International, Annual Meeting, April 2015.
3. Shakoor N, Lidtke RH, Ferrigno C, Nair A, Wimmer MA, **Thorp LE**, Gross KD, Block JA. Characteristics of Conventional Footwear and Their Association with Reductions in Knee Loading with a Flexible Footwear Intervention, American College of Rheumatology Annual Meeting, 2014

4. Ferrigno C, Lidtke RH, Wimmer MA, Nair A, **Thorp LE**, Fogg L, Block JA, Shakoor N. Foot Center of Pressure in Knee Osteoarthritis and Its Association with Knee Load Reduction with Barefoot Walking. American College of Rheumatology Annual Meeting. 2014
5. Ferrigno C, **Thorp LE**, Shakoor N, Wimmer MA. Center of Plantar Pressure Can Predict Changes in Tibiofemoral Contact Load, Transactions of the Osteoarthritis Research Society International, v22, S92-S93, 2014.
6. Ferrigno C, Wimmer MA, **Thorp LE**. Medializing Center of Plantar Pressure Reduces Peak Knee Adduction Moment, Orthopedic Research Society Annual Meeting, 0777, 2014.
7. Shakoor N, Lidtke RH, Fogg LF, **Thorp LE**, Wimmer M, Mikolaitis RA, Block JA. Arrest of progressive loss of vibratory perception in knee osteoarthritis: effects of a 48 week biomechanical intervention. *Arthritis Rheum* 65(10):S917, 2013.
8. Shakoor N, Lidtke RH, Fogg LF, **Thorp LE**, Wimmer M, Mikolaitis RA, Block JA. Improvement in clinical symptoms after 48 Weeks of wearing flexible footwear in osteoarthritis of the knee: A randomized placebo-controlled study. *Arthritis Rheum* 65(10):S917, 2013.
9. Shakoor N, Lidtke RH, Fogg LF, Mikolaitis RA, Wimmer MA, Foucher KC, **Thorp LE**, Block JA. Flexible footwear reduces dynamic joint loads in knee osteoarthritis: Results of a 6 month randomized controlled trial. *Arthritis Rheum* 64(10):S114, 2012.
10. Gan J, **Thorp LE**, Mikolaitis RA, Fogg LF, Block JA, Shakoor N. Specialized footwear decreases medial tibial bone mineral density over 48 weeks in knee osteoarthritis. *Arthritis Rheum* 64(10):S115, 2012.
11. **Thorp, LE**; Wimmer MA, Sumner DR, Block JA. Reducations in Knee Joint Loads after Focused Hip Muscle Training. American College of Rheumatology Annual Meeting November 2011.
12. Daher J, Block JA, Wimmer MA, Sumner DR, **Thorp LE**. The Effects of Hip Muscle Training on Knee Joint Loading in Medial Knee Osteoarthritis. American College of Rheumatology Annual Meeting November 2010.
13. Dua A, **Thorp LE**, Block JA, Shakoor N. Increased bone mineral density is associated with higher dynamic joint loads at the asymptomatic knees of subjects with unilateral hip OA. *Osteoarthritis Cartilage* 17(Suppl 1): S88, 2009.
14. Dua A, Shakoor N, **Thorp LE**, Block JA. Bone mineral density is associated with dynamic joint loads in osteoarthritis predisposed knees. *Arthritis Rheum* 60(10): S237, 2009.
15. Foucher K, Kannankeril G, Block JA, Shakoor N, Wimmer M, **Thorp LE**. Gait variability across the spectrum of knee osteoarthritis. *Arthritis Rheum* 60(10): S308, 2009.

16. **Thorp LE**, Sheean A, Wimmer MA, Sumner DR, Block JA. The Effects of Load Reduction on Periarticular BMD in Knee OA. American College of Rheumatology Annual Meeting October 2008.
17. Wilson A; Ross C; Williams JM; **Thorp LE**. Bringing Anatomy to Life: Clinical Emergency Procedures Laboratory for First-Year Medical Students (Pilot Study). Transactions of the American Association of Clinical Anatomists Annual Meeting 2008.
18. **Thorp, LE**; Wimmer MA, Sumner DR, Block JA. Custom Shoe Inserts Induce Beneficial Long-Term Gait Adaptations in Medial Knee Osteoarthritis. *Transactions of the American College of Rheumatology* Annual Meeting 2007.
19. Wimmer MA, **Thorp LE**, Foucher KC, Sumner DR, Shakoor N, Block JA. Hip abductor strengthening reduces medial knee loads and palliates knee pain. *Arthritis Rheum* 56(9): S121, 2007.
20. **Thorp LE**; Sumner DR; Block JA; Wimmer MA. Activity Level Is Inversely Correlated with Knee Adduction Angular Impulse in Healthy Older Adults. *Transactions of the Orthopedic Research Society* 32: 1819, 2007.
21. **Thorp LE**; Sumner DR; Dinh H; Wimmer MA; Block JA. Peak External Hip Joint Moments Explain Variance in Proximal Femoral BMC and BMD in Subjects with Knee OA. *Transactions of the Orthopedic Research Society* 32: 1398, 2007.
22. **Thorp LE**; Sumner DR; Wimmer MA; Block JA. The Relationship of Pain to Medial Knee Joint Loading in Mild Radiographic Knee Osteoarthritis. *Transactions of the American College of Rheumatology* 2093, 2006.
23. Wimmer MA; **Thorp LE**; Foucher KC; Sumner DR; Block JA. Medial Knee Osteoarthritis is Associated with Reduced Hip Internal Rotation Moments. *Transactions of the American College of Rheumatology* 256, 2006.
24. **Thorp LE**; Sumner DR; Block JA; Moisio KC; Shott S; Wimmer MA. Knee Adduction Angular Momentum Is a more Sensitive Predictor of Severity of Radiographic Knee Osteoarthritis than Peak Joint Moments. *Transactions of the Orthopedic Research Society* 31: 169, 2006.
25. **Thorp LE**; Wimmer MA; Block JA; Moisio KC; Shott S.; Goker B.; Sumner D.R. Medial-to_lateral Tibial BMD varies as a Function of Terminal Stance Knee Adduction Moment in Individuals with Mild to Moderate Medial Knee Osteoarthritis. *Transactions of the American College of Rheumatology* 1815, 2005.
26. **Thorp LE**; Block JA; Shakoor N; Sumner DR. An Examination of Proximal Tibial Apparent Bone Mineral Density Variations in Individuals with Differing Degrees of Radiographic Knee Osteoarthritis. *Transactions of the Orthopedic Research Society* 30: 1415, 2005.

27. Block JA; Moisio KC, Wimmer MA; Li Y; **Thorp, LE**; Lariosa S; Sumner DR. Wedged Orthotics Provide Sustained Mechanical Unloading in Medial Knee Osteoarthritis. *Transactions of the American College of Rheumatology* 1337, 2005.
28. Shakoor N, **Thorp LE**, Block JA. Dynamic joint loading alterations are associated with radiographic severity but not pain in subjects with unilateral hip osteoarthritis. *Osteoarthritis Cartilage* 13(Supp), 2005.
29. **Thorp LE**, Block JA, Shakoor N, Sumner DR. Proximal tibial bone mineral density varies in individuals with differing degrees of radiographic medial knee osteoarthritis. *Osteoarthritis Cartilage* 12(Supp 2): S63, 2004.
30. **Thorp LE**; Collins RJ; Muehleman C; Cole AA; Kuettner KE; Sumner DR. Quantitative Analysis and Comparison of Apparent Bone Density of the Proximal Tibia as a Function of Cartilage Degeneration. *Transactions of the Orthopedic Research Society* 29: 1016, 2004.