

DUKE UNIVERSITY MEDICAL CENTER

CURRICULUM VITAE

Date Prepared: 07/31/19

Name (complete with degrees): Trevor A. Lentz, PT, PhD, MPH

Primary academic appointment: Assistant Professor

Primary academic department: Orthopaedic Surgery

Date and rank of first Duke Faculty appointment: Assistant Professor 07/01/19

Medical Licensure: North Carolina License #: P19154; Florida License #: PT22859

Specialty certification(s) and dates:

2006 – Present	Florida Physical Therapy License # PT22859
2008 – Present	CPR/AED certified
2010 – Present	APTA Credentialed Clinical Instructor
2011 – Present	American Red Cross First Responder
2012 – Present	ABPTS Sports Certified Specialist

Date of birth: 03/19/1981 Place: Tampa, FL Citizen of: US

<u>Education:</u>	<u>Institution</u>	<u>Date (Year)</u>	<u>Degree</u>
High School	Jesuit High School Tampa, FL	1999	
College	University of Florida/Gainesville Gainesville, FL	2003	B.S./Exercise & Sports Science
Graduate or Professional School	University of Florida/Gainesville Gainesville, FL	2006	MPT
	University of Florida/Gainesville Gainesville, FL	2016	MPH/Health Policy & Management
	University of Florida/Gainesville Gainesville, FL	2017	PhD/Rehabilitation Science

Professional training and academic career (chronologically, beginning with first postgraduate position):

<u>Institution</u>	<u>Position/Title</u>	<u>Dates</u>
University of Florida College of Public Health & Health Professions, Gainesville, FL	Sports Physical Therapy Residency	2006-2007
Shands Rehabilitation Gainesville, FL	Physical Therapist UF Health Orthopedics & Sports Medicine	2007-2017
Brooks Rehabilitation Jacksonville, FL	Public Health Internship	2016
Duke Clinical Research Institute Duke University, Durham, NC	Postdoctoral Fellowship Musculoskeletal Research	2017-2019

Publications

Refereed Journals

1. Chmielewski TL, Jones D, Day T, Tillman SM, **Lentz TA**, George SZ. The Association of Fear of Movement/Re-injury and Function during Anterior Cruciate Ligament Reconstruction Rehabilitation. *J Orthop Sports Phys Ther.* 2008;38(12):746-53.
2. **Lentz TA**, Tillman SM, Moser MW, Indelicato PA, George SZ, Chmielewski TL. Factors Associated with Function after Anterior Cruciate Ligament Reconstruction. *Sports Health: A Multidisciplinary Approach.* 2009;1 (1):47-53.
3. **Lentz TA**, Barabas J, Day T, Bishop M, George SZ. The Relationship of Physical Impairment, Pain, and Pain-related Fear to Function in Patients with Shoulder Pathology. *J Orthop Sports Phys Ther.* 2009;39(4):270-77.
4. **Lentz TA**, Sutton Z, Greenberg S, Bishop M. Pain-related Fear of Movement Contributes to Self-reported Disability in Patients with Foot and Ankle Pathology. *Arch Phys Med Rehabil.* 2010 Apr;91(4):557-61.
5. Matheson H, **Lentz TA**. Tibial Spine Avulsion Fracture Following a Pivot Shift Injury. *J Ortho Sports Phys Ther.* 2010 Sep;40(9):595.
6. Chmielewski TL, Zeppieri G, **Lentz TA**, Tillman SM, Moser MW, Indelicato PA, George SZ. Longitudinal Changes in Psychosocial Factors and their Association with Knee Pain and Function after Anterior Cruciate Ligament Reconstruction. *Phys Ther.* 2011 Sep;91(9):1355-66.
7. George SZ, **Lentz TA**, Zeppieri G, Lee D, Chmielewski TL. Analysis of Shortened Versions of the Tampa Scale for Kinesiophobia and Pain Catastrophizing Scale for Patients after Anterior Cruciate Ligament Reconstruction. *Clin J Pain.* 2012 Jan;28(1):73-80.
8. Zeppieri G, **Lentz TA**, Atchison J, Indelicato PA, Moser WM, Vincent K, George SZ. Patient Defined Success Criteria in Outpatient Physical Therapy Settings. *Arch Phys Med Rehabil.* 2012 Mar;93(3):434-40.
9. **Lentz TA**, Tillman SM, Moser MW, Indelicato PA, George SZ, Chmielewski TL. A Cross Sectional Study of Return to Pre-Injury Sports Participation Following ACL Reconstruction: Contributions of Demographic, Knee Impairment and Self-Report Measures. *J Ortho Sports Phys Ther.* 2012;42(11):893-901.
10. Chmielewski TL, Martin CS, **Lentz TA**, Tillman SM, Moser MW, Farmer KW, Jaric S. Normalization Considerations for Using the Unilateral Shot Put Test in Rehabilitation. *J Orthop Sports Phys Ther.* 2014 Jul;44(7):518-24.
11. **Lentz TA**, Zeppieri G, George SZ, Tillman SM, Moser MW, Farmer KW, Chmielewski TL. Comparison of Knee Impairment, Pain Intensity, Function and Psychological Measures Among Return to Sport Status Groups in the First Year Following ACL Reconstruction. *Am J Sports Med.* 2015 Feb;43(2):345-53.
12. George SZ, Beneciuk JM, Bialosky JE, **Lentz TA**, Zeppieri G Jr, Pei Q, Wu SS. Development of a Review of Systems Screening Tool for Orthopaedic Physical Therapists: Results From the Optimal Screening for Prediction of Referral and Outcome (OSPRO) Cohort. *J Orthop Sports Phys Ther.* 2015 Jul;45(7):512-26.
13. Zeppieri G, **Lentz TA**, Moser MW, Farmer KF. Changes in Hip ROM and Strength over the Course of a Competitive Season in Collegiate Baseball Pitchers. *Int J Sports Phys Ther.* 2015 Aug;10(4):505-13.
14. Simon CB, **Lentz TA**, Bishop MD, Riley JL, Fillingim RB, George SZ. Comparative Associations of Working Memory and Pain Catastrophizing with Chronic Low Back Pain Intensity: Preliminary Indication of Age Group Effects. *Phys Ther.* 2016 Jul;96(7):1049-56.
15. Chmielewski TL, George SZ, Tillman SM, Moser MW, **Lentz TA**, Indelicato PA, Shuster J, Trumble TN, Leeuwenburgh C, Cicuttini FM. High vs Low Intensity Plyometric Exercise in Anterior Cruciate Ligament Reconstruction Rehabilitation. *Am J Sports Med.* 2016 Mar;44(3):609-17.
16. **Lentz TA**, Beneciuk JM, Bialosky JE, Zeppieri G Jr, Dai Y, Wu SS, George SZ. Development of a Yellow Flag Screening Tool for Orthopaedic Physical Therapists: Results from the Optimal Screening for Prediction of Referral and Outcome (OSPRO) Cohort. *J Orthop Sports Phys Ther.* 2016 May;46(5):327-43.
17. Butera KA, **Lentz TA**, Beneciuk JM, George SZ. Use of a Modified STarT Back Screening Tool across Different Anatomical Regions of Musculoskeletal Pain. *Phys Ther.* 2016 Aug;96(8):1251-61.
18. Rhon DI, **Lentz TA**, George SZ. Unique Contributions of Body Diagram Scores and Psychosocial Factors to Pain Intensity and Disability in Patients with Musculoskeletal Pain in a Military Primary Care Clinic. *J Orthop Sports Phys Ther.* 2016 Nov 5:1-24.

19. Coronado RA, Simon CB, **Lentz TA**, Gay CW, Mackie LN, George SZ. Optimism Moderates the Influence of Pain Catastrophizing on Shoulder Pain Outcome: A Longitudinal Analysis. *J Orthop Sports Phys Ther*. 2017 Jan;47(1):21-30.
20. **Lentz TA**, Harman JS, Marlow NM, George SZ. Development of a Value Model for the Prevention and Management of Chronic Musculoskeletal Pain by Physical Therapists. *Phys Ther*. 2017 March; 97(3): 354-64.
21. George SZ, Beneciuk JM, **Lentz TA**, Wu SS. The Optimal Screening for Prediction of Referral and Outcome (OSPRO) in Patients with Musculoskeletal Pain Conditions: A Longitudinal Validation Cohort from the USA. *BMJ Open*. 2017 Jun 8;7(6):e015188.
22. **Lentz TA**, Paterno MV, Riboh JC. So You Think You Can Return to Sport? *Br J Sports Med*. 2018. Feb 26.
23. George SZ, Beneciuk JM, **Lentz TA**, Wu SS, Dai Y, Bialosky JE, Zeppieri G Jr. Optimal Screening for Prediction of Referral and Outcome (OSPRO) for Musculoskeletal Pain Conditions: Results From the Validation Cohort. *J Orthop Sports Phys Ther*. 2018 Jun;48(6):460-475.
24. Beneciuk JM, **Lentz TA**, He Y, Wu SS, George SZ. Prediction of Persistent Musculoskeletal Pain at 12 Months: A Secondary Analysis of the Optimal Screening for Prediction of Referral and Outcome (OSPRO) Validation Cohort Study. *Phys Ther*. 2018 May 1;98(5):290-301.
25. **Lentz TA**, Beneciuk JM, George SZ. Prediction of Healthcare Utilization following an Episode of Physical Therapy for Musculoskeletal Pain. *BMC Health Serv Res*. 2018 Aug 20;18(1):648.
26. **Lentz TA**, Marlow NM, Beneciuk JM, Fillingim RB, George SZ. Comorbidity Subgroups among Medicare Beneficiaries Seeking Health Care for Musculoskeletal Pain. *J Gerontol A Biol Sci Med Sci*. 2018 Aug 27.
27. Malay M, **Lentz TA**, O'Donnell J, Coles T, Mather III RC, Jiranek WA. Development and Initial Outcomes of a Comprehensive, Non-Surgical Joint Health Program for Individuals with Osteoarthritis: Administrative Case Report. *Phys Ther*. 2019;pzz150. doi:10.1093/ptj/pzz150
28. Rhon DI, Mysliwiec V, O'Hagan E, **Lentz TA**. Does disordered sleep moderate the relationship between pain, disability and downstream healthcare utilization in patients with low back pain? A longitudinal cohort from the US Military Health System. *Spine (Phila Pa 1976)*. 2019;44(21):1481-1491.
29. **Lentz TA**, Goode AP, Thigpen CA, George SZ. Value-Based Care for Musculoskeletal Pain: Are Physical Therapists Ready to Deliver? *Phys Ther*. 2019;pzz171. doi:10.1093/ptj/pzz171
30. **Lentz TA**, Rhon DI, George SZ. Predicting Opioid Use, Increased Health Care Utilization and High Costs for Musculoskeletal Pain: What Factors Mediate Pain Intensity and Disability? *J Pain*. 2019;S1526-5900(19)30743-6. doi:10.1016/j.jpain.2019.06.004
31. Rhon DI, **Lentz TA**, George SZ. Utility of Catastrophizing, Body Symptom Diagram Score, and History of Opioid Use to Predict Downstream Healthcare Utilization for Musculoskeletal Pain. *Fam Pract*. 2019;cmz046. doi:10.1093/fampra/cmz046
32. Butera KA, George SZ, **Lentz TA**. Psychometric evaluation of the Optimal Screening for Prediction of Referral and Outcome Yellow Flag (OSPRO-YF) tool: factor structure, reliability, and validity. *J Pain*. 2019;S1526-5900(19)30811-9. doi:10.1016/j.jpain.2019.09.003
33. **Lentz TA**, Harman JS, Marlow NM, Beneciuk JM, Fillingim RB, George SZ. Factors associated with persistently high-cost health care utilization for musculoskeletal pain. *PLoS One*. 2019;14(11):e0225125. Published 2019 Nov 11. doi:10.1371/journal.pone.0225125
34. George SZ, **Lentz TA**, Beneciuk JM, Bhavsar NA, Mundt J, Boissoneault J. Improving Electronic Health Record Prediction of Musculoskeletal Pain Outcomes to Meet National Research Priorities. *Pain Reports, In Press*

Manuscripts in Review:

1. **Lentz TA**, Magill J, Myers H, Pietrosimone L, Reinke E, Messer M, Riboh JC. Development of a Concise Lower Extremity Physical Performance Test Set for Return to Sport Decision-Making in Pediatric Populations. *Medicine and Science in Sport and Exercise, In Review*
2. **Lentz TA**, Curtis LH, Rockhold F, Martin D, et al. Best Practice in Designing, Conducting, Monitoring, and Analyzing Data from Pragmatic Randomized Clinical Trials. *Therapeutic Innovation & Regulatory Science, In Review*

- George SZ, Li C, Luo S, Horn ME, **Lentz TA**. Longitudinal Monitoring of Pain Associated Distress with the OSPRO Yellow Flag Tool: Predicting Reduction in 12-Month Pain Intensity and Disability. *Arch of Phys Med Rehabil. In Review*.

Chapters in Books

- Senesac CR, Bishop M. Finley's Interactive Cadaveric Dissection Guide. Jones and Barlett 2009. Contributor
- Bishop MD, **Lentz TA**, George SZ. Low Back Pain: Causes and Differential Diagnosis, Chapter 9 in *Pathology and Intervention in Musculoskeletal Rehabilitation, Second Edition*. Elsevier. St. Louis, MO (USA). Editors: Magee DJ, Zachazewski JE; Quillen WS, Manske RC. (2016)

Selected Abstracts

- Lentz TA**, Huegel M, Bishop M. Determining the most likely source of symptoms in patient with unilateral upper extremity paresthesia. *Journal of Orthopedic and Sports Physical Therapy* 37(1):A65-66, 2007.
- Lentz TA**, Tillman SM, Moser MW, Indelicato PA, George SZ, Chmielewski TL. Identifying impairments that predict function: A preliminary step in developing return-to-sport guidelines for ACL reconstruction. *J Orthop Sports Phys Ther* 38(1):A71, 2008.
- Lentz TA**, Barabas J, Day T, Bishop M, George SZ. The relationship of physical impairment, pain, and kinesiophobia to disability in patients with shoulder pathology. *J Orthop Sports Phys Ther* 38(1):A19, 2008.
- Mathur S, Gregory CM, Inamdar A, **Lentz TA**, Shah PK, Tillman SM, Walter GA, Vandeborne K. Rehabilitation leads to greater improvements in muscle size than function following cast immobilization. *J Orthop Sports Phys Ther* 38(1):A38, 2008.
- Chmielewski TL, Tillman SM, Dunn JC, **Lentz TA**, George SZ, Indelicato PA, Moser MW. Elevated kinesiophobia in football players is associated with altered movement during a jump-landing task. *Journal of Athletic Training*, 43 (3), S-29, 2008.
- Dunn JC, Tillman SM, **Lentz TA**, Indelicato PA, Moser, MW, Chmielewski TL. What impairments in football players contribute to poor movement patterns during functional movement analysis? *Journal of Athletic Training*, 43 (3), S-136, 2008.
- Lentz TA**, Tillman SM, Moser MW, Indelicato PA, George SZ, Chmielewski TL. Clinical factors that differ between return to sport status groups in patients with ACL reconstruction. *J Orthop Sports Phys Ther* 39(1):A102, 2009.
- Gregory C, Mathur S, Hinds R, Ball J, **Lentz TA**, Walter G, Vandeborne K. Attenuation of Muscle Impairments Relates To Functional Improvements During Rehabilitation Following Immobilization. *Medicine & Science in Sports & Exercise*. 41(5):526, May 2009.
- Hinds R, Blank J, Mathur S, Gregory C, **Lentz TA**, Tillman S, Walter G, Vandeborne K. Improvements In Plantarflexor Size And Function Following Rehabilitation After Lower Leg Injury. *Medicine & Science in Sports & Exercise*. 41(5):286-287, May 2009.
- Chmielewski TL, Rademaker M, George SZ, Zeppieri G, **Lentz TA**, Tillman SM. Changes in Psychosocial Factor Levels and Influence on Function over 12 Weeks after ACL Reconstruction. *J Orthop Sports Phys Ther* 40 (1):A40, 2010.
- Lentz TA**, Sutton Z, Greenberg S, Bishop M. Pain-related Fear of Movement Contributes to Self-reported Disability in Patients with Foot and Ankle Pathology. *J Orthop Sports Phys Ther* 40(1):A29, 2010.
- Lentz TA**, Tillman SM, Zeppieri G, George SZ, Chmielewski TL, Moser MW, Indelicato PA. Identification of Factors that Predict Return to Pre-injury Level of Sport Participation 1 Year Following ACL Reconstruction. *J Orthop Sports Phys Ther* 40(1):A41, 2010.
- Lentz TA**, Tillman SM, Zeppieri G, George SZ, Chmielewski TL, Moser MW, Indelicato PA. Development of a Clinical Prediction Rule for Return to Sport Status One Year following Anterior Cruciate Ligament Reconstruction. AOSSM Annual Meeting, Providence, RI 2010.
- Lentz TA**, Zeppieri G, Moser MW, Indelicato PA, George SZ, Chmielewski TL. Fear of Re-injury/Low Confidence 1 Year after ACL Reconstruction: High Prevalence and Altered Self-ratings. *J Orthop Sports Phys Ther* 41(1):A39, 2011.

15. Zeppieri G, **Lentz TA**, Atchison J, Indelicato PA, Moser WM, Vincent K, George SZ. Patient Defined Success Criteria in Outpatient Physical Therapy Settings. *J Orthop Sports Phys Ther* 41(1):A36, 2011.
16. Dominguez J, Chan N, Tillman SM, **Lentz TA**, Moser MW, Indelicato PA, Chmielewski TL. Biomechanical Asymmetries in a Drop-Landing Are Associated with Quadriceps Weakness Prior to Advanced Anterior Cruciate Ligament Reconstruction Rehabilitation. *Journal of Orthopedic and Sports Physical Therapy* 41(1):A42, 2011.
17. George SZ, **Lentz TA**, Lee D, Chmielewski TL. Psychometric Investigation of the Tampa Scale for Patients with Post-operative Anterior Cruciate Ligament Reconstruction. *J Orthop Sports Phys Ther* 41(1):A38, 2011.
18. **Lentz TA**, Chmielewski TL, Tillman SM, Indelicato PA, Moser MW, Herder BL, George SZ. Activity Following ACL Reconstruction: What Do Patients Fear? *J Orthop Sports Phys Ther* 42(1):A44, 2012.
19. **Lentz TA**, Zeppieri G, Moser MW, Indelicato PA, George SZ, Chmielewski TL. Psychosocial Factors are related to Resolution of Knee Impairments in Early Rehabilitation following ACL Reconstruction. *J Orthop Sports Phys Ther.* 42(1):A44-5, 2012.
20. Chmielewski TL, George SZ, Tillman SM, **Lentz TA**, Indelicato PA, Moser MW, Shuster J, Trumble T, Cicuttini F, Leeuwenburgh C. Effect of Plyometric Exercise Intensity on Knee Function and Articular Cartilage Biomarkers Following ACL Reconstruction. *J Orthop Sports Phys Ther.* 42(1):A45, 2012.
21. Martin CS, Tillman SM, **Lentz TA**, Jones D, Indelicato PA, Moser MW, Chmielewski TL. Factors in Performance on the Unilateral Seated Shotput Test. *Journal of Orthopedic and Sports Physical Therapy* 42(1):A56, 2012.
22. **Lentz TA**, George SZ, Zeppieri G, Chmielewski TL. Identification of Individuals at Risk for Not Returning to Pre-injury Levels of Sports Participation after ACL Reconstruction Due to Fear of Re-Injury/Lack of Confidence. *J Orthop Sports Phys Ther.* 43(1):A49, 2013.
23. Chmielewski TL, Herder B, **Lentz TA**, Zeppieri G, George SZ. Fear of Movement/Re-injury and Activity Self-Efficacy in Early and Late Phases of ACL Reconstruction Rehabilitation. *Journal of Orthopedic and Sports Physical Therapy.* 43(1):A48, 2013.
24. Zeppieri G, **Lentz TA**, Moser MW, Zaremski JL, Chmielewski TL, Barrett J, Tillman SM, Farmer KW. Pre-Season Shoulder Range of Motion and Relationship to Lower Extremity Injury throughout the Season in Division I Baseball Pitcher. AMSSM 22nd Annual Meeting, San Diego, CA, 2013.
25. **Lentz TA**, Zeppieri G, Tillman S, Moser MW, Farmer KW, George SZ, Chmielewski TL. Derivation of a Prognostic Test-Item Cluster for Return to Sport Participation Status 1 Year Following ACL Reconstruction. *J Orthop Sports Phys Ther.* 44(1):A63, 2014.
26. **Lentz TA**, Zeppieri G, Tillman S, Moser MW, Farmer KW, George SZ, Chmielewski TL. First-Year Recovery Patterns Differ Among Return to Sport Status Groups Following ACL Reconstruction. *J Orthop Sports Phys Ther.* 44(1):A51, 2014.
27. **Lentz TA**, George SZ, Zeppieri G, Moser MW, Farmer KW, Tillman SM, Chmielewski TL. Pain Intensity, Pain Catastrophizing, Kinesiophobia and Self-reported Function in the First Year following Anterior Cruciate Ligament Reconstruction. *The Journal of Pain*, April 2014 (Vol. 15, Issue 4, Supplement, Page S4).
28. George SZ, Wu S, Bialosky J, Zeppieri G, **Lentz TA**, Osborne R, Rowe R, Dai Y, Pei Q, Beneciuk. A Red Flag Screening Tool for Orthopaedic Physical Therapy Settings: Results from the Optimal Screening for Prediction of Referral and Outcome (OSPRO) Cohort. *J Orthop Sports Phys Ther.* 45(1):A19, 2015.
29. Beneciuk J, **Lentz TA**, Wu S, Bialosky J, Zeppieri G, Osborne R, Rowe R, Dai Y, Pei Q, George SZ. Development of a Yellow Flag Screening Tool for Orthopaedic Physical Therapy Settings: Results from the Optimal Screening for Prediction of Referral and Outcome (OSPRO) Cohort. *J Orthop Sports Phys Ther.* 45(1):A89, 2015.
30. **Lentz TA**, George SZ. Influences of Pain Self-Efficacy on Pain Catastrophizing: Evidence for Mediation and Moderation Roles in Outpatient Orthopedic Physical Therapy. *J Orthop Sports Phys Ther.* 45(1):A44, 2015.
31. Rhon DI, **Lentz TA**, George SZ. Moderation Effects of Pain Catastrophizing and Fear Avoidance Beliefs on the Relationship between Body Symptom Diagram Score, Pain Intensity and Self-Reported Disability. *J Orthop Sports Phys Ther.* 46(1):A20, 2016.
32. Butera KA, **Lentz TA**, Beneciuk JM, George SZ. Use of a modified STarT Back Screening Tool across different anatomical regions of musculoskeletal pain. *J Orthop Sports Phys Ther.* 46(1):A5, 2016.

33. Coronado RA, **Lentz TA**, Simon CB, Gay CW, Mackie LN, Bialosky JE, Bishop MD, George SZ. Optimism Moderates the Influence of Pain Catastrophizing on Shoulder Pain Outcomes: A Longitudinal Analysis. *J Orthop Sports Phys Ther.* 46(1):A46, 2016.
34. **Lentz TA**, Beneciuk JM, George SZ. Performance of the OSPRO Yellow Flag Screening Tool in the First Month of Physical Therapy: Value Added by Psychological Distress Monitoring. *J Orthop Sports Phys Ther.* 46(1):A14, 2016.
35. **Lentz TA**, Mills JC, Vaughn IA, Bauer SE, Kinsell H, Fillingim RB, George SZ, Harman JS. Utilization of Nonpharmacological Treatment Approaches for Low Back Pain and Osteoarthritis Among Medicare Beneficiaries. *J Orthop Sports Phys Ther.* 46(1):A106, 2016.
36. **Lentz TA**, Beneciuk JM, George SZ. Consistency of Factor Structure and Psychological Subgroups for the OSPRO-Yellow Flag Assessment Tool. *Journal of Orthopedic and Sports Physical Therapy. J Orthop Sports Phys Ther.* 47(1), 2017.
37. **Lentz TA**, Marlow NM, Beneciuk JM, Fillingim RB, George SZ. Predictors of Persistently High Healthcare Expenditures for Osteoarthritis. *Journal of Pain. The Journal of Pain*, April 2017 (Vol. 18, Issue 4, Supplement, Page S76-77).
38. **Lentz TA**, Marlow NM, Beneciuk JM, Fillingim RB, George SZ. Prediction of Persistently High Healthcare Costs due to Musculoskeletal Pain. *J Orthop Sports Phys Ther.* 48(1):A16, 2018.
39. **Lentz TA**, Beneciuk JM, George SZ. Risk Model Development for Additional Healthcare Use Following an Episode of Physical Therapy for Musculoskeletal Pain. *J Orthop Sports Phys Ther.* 48(1):A16, 2018
40. George SZ, Beneciuk JM, **Lentz TA**, Wu SS, Pei Q, Bialosky JE, Zeppieri G. Optimal Screening for Prediction of Referral and Outcome (OSPRO) for Musculoskeletal Pain Conditions: Results from the Validation Cohort. *J Orthop Sports Phys Ther.* 48(1):A11, 2018.
41. Beneciuk JM, **Lentz TA**, He Y, Wu SS, George SZ. Prediction of Persistent Musculoskeletal Pain at 12 months: A Secondary Analysis of the Optimal Screening for Prediction of Referral and Outcome (OSPRO) Longitudinal Validation Cohort Study. *J Orthop Sports Phys Ther.* 48(1):A3-4, 2018.
42. **Lentz TA**, Zeppieri G, Bialosky JE, George SZ. Patient-Centered Outcomes: Domain Importance Predicts Health Care Utilization following Physical Therapy. *J Orthop Sports Phys Ther.* 49(1):CSM17, 2019.
43. **Lentz TA**, O'Donnell JD, Ross MA, Jiranek WA, Mather RC III. Patient Subgrouping to Inform Treatment Pathway Development for a Comprehensive Osteoarthritis Care Program. *J Orthop Sports Phys Ther.* 49(1):CSM18, 2019.
44. Ross MA, O'Donnell JD, **Lentz TA**, Mather RC III, Jiranek WA. Development and Implementation of a Comprehensive Lifestyle and Behavioral Health Management Program for Osteoarthritis: A New Role for Physical Therapists. *J Orthop Sports Phys Ther.* 49(1):CSM23, 2019.
45. Takanori Morozumi T. Hashikawa, S. Orita, **T.A. Lentz**, Y. Hagihara, T. Kon, S. Ohtori, S.Z. George, A. Terakado. Characteristics of psychological factors in Japanese low back pain patients: Comparison between Japan and the United States using Comprehensive Psychological Factor Rating Scale (OSPRO–YF). 2019 ISSLS Kyoto, Japan June 3-7, 2019.
46. Malay MA, **Lentz TA**, O'Donnell J, Jiranek WA, Mather RC III. Early Outcomes of a Longitudinal, Comprehensive Lifestyle and Behavioral Health Management Program for Osteoarthritis in the United States. OARSI 2020 World Congress, Vienna, Austria.

Non-refereed Publications

1. **Lentz TA**, Huegel M, Bishop M. Determining the Most Likely Source of Symptoms in a Patient with Unilateral Upper Extremity Paresthesia. *Orthopaedic Practice.* 2008;20(3):112-20.
2. Goldman R, **Lentz TA**. The Use of Eccentric Overloading Exercise for the Treatment of Patellar Tendinosis in an Olympic-style Weightlifter: A Case Report. *Orthopaedic Practice.* 2010; 22(2):76-82.

Professional Activities

Service and Leadership

2007-2014 District Representative, Northern District, Florida Physical Therapy Association

- 2011-2013 Chair, Research Committee, UFHealth Orthopaedics and Sports Medicine Institute Department of Physical Therapy
- 2014 Voting Panel Member, American Academy of Orthopaedic Surgery Consensus Guidelines for Management of ACL Injuries
- 2018-Present Member, External Grant Committee, Academy of Orthopaedic Physical Therapy
- 2018-2019 Co-chief Fellow, Duke Clinical Research Institute Fellowship Program
- 2019 Lead Fellow, DCRI Think Tank on “*Emerging Techniques for Monitoring and Analyzing Data in Pragmatic Streamlined Trials*”, Washington, DC

Professional Awards and Special Recognitions

- 2006 Outstanding Academic Performance Award, Department of Physical Therapy, University of Florida
- 2006 Dean's Scholarship Finalist, College of Public Health and Health Professions, University of Florida
- 2008 Excellence in Research Award, APTA Sports Physical Therapy Section
- 2010 New Horizon Award, APTA Sports Physical Therapy Section
- 2011 Excellence in Research Award, APTA Sports Physical Therapy Section
- 2013 Graduate Student Fellowship, University of Florida
- 2015 Miami-Marquette Challenge Award, Foundation for Physical Therapy
- 2016 Viva J. Erickson Award for Outstanding Academic Leadership and Achievement, Foundation for Physical Therapy
- 2016 Rehabilitation Science Travel Award, College of Public Health and Health Professions, University of Florida
- 2017 Young Investigator Travel Award, American Pain Society
- 2017 12th Annual Neuromuscular Plasticity Symposium Poster Award, Department of Physical Therapy, University of Florida
- 2017 Outstanding Paper Award, PhD in Rehabilitation Science Program, Univ. of Florida
- 2017 Dean's Scholar, College of Public Health and Health Professions, University of Florida
- 2019 STOP Sports Injuries Award, American Orthopaedic Society for Sports Medicine
- 2019 Chattanooga Research Award, American Physical Therapy Association

Editorial Experience

- 2016 - Present International Editorial Review Board, *Journal of Orthopaedics and Sports Physical Therapy*
- 2018 - Present Associate Editor, *British Journal of Sports Medicine*

Ad Hoc Reviewer

- 2017 Clinical Journal of Pain
- 2017 Scandinavian Journal of Medicine and Science in Sport
- 2017 European Journal of Pain
- 2018 Circulation: Cardiovascular Quality and Outcomes
- 2018 Journal of Pain
- 2018 Medical Care
- 2018 BMJ Open
- 2018 BMC Health Services Research
- 2018 American Journal of Sports Medicine
- 2018 Sports Medicine
- 2018 Physiotherapy Theory and Practice
- 2018 Sports Health
- 2019 Arthritis Care & Research
- 2019 PAIN Reports
- 2019 Physical Medicine and Rehabilitation
- 2019 Physiotherapy Canada

Professional Memberships

2005 – 2006	Health Volunteers Overseas
2006 – 2017	Florida Physical Therapy Association
2006 – Present	American Physical Therapy Association
2007 – 2015	- Sports Section
2015 – Present	- Orthopaedic Section
2015 – Present	- Health Policy Section

External support – Grants and Training Awards

Current

2017 – 2019 **Co-Investigator**, NIH/VA/DOD - 1UG3AT009790-01 (PI: Hastings & George)
Funder: NIH-National Center for Complementary & Integrative Health (NCCIH)
Title: Improving Veteran Access to Integrated Management of Chronic Back Pain
The overall goal of this UG3 (Planning Phase)/UH3 (Demonstration Project) proposal is to improve access to recommended non-pharmacologic therapies for low back pain in the Department of VA Health Care System.
\$7,900,000

2018 – 2020 **Principal Investigator**, D.L. Hart Memorial Outcomes Research Grant
Funder: Focus on Therapeutic Outcomes (FOTO)
Title: Refining Psychological Domain Measurement using Item Response Theory Analysis
This project will use item response theory (IRT) to develop a questionnaire that measures pain-related fear avoidance, negative mood, and positive coping.
\$10,000

2019-2021 **Principal Investigator**, Improving Southern Health: Addressing the Opioid Crisis in North Carolina Program Portfolio
Funder: The Duke Endowment
Title: “Implementing Integrated Pain Management: Lessons from North Carolina Health Systems and Beyond”
This project aims to better understand the development and implementation of integrated pain management models and to make recommendations about how they can be better deployed.
\$239,600

Past

2013 – 2016 **Graduate research assistant/study coordinator**, Clinical Research Network Grant (PI: George)
Funder: Orthopaedic Section, American Physical Therapy Association
Title: Orthopaedic Physical Therapy-Investigative Network (OPT-IN) for the Optimal Screening for Prediction of Referral and outcome (OSPRO) Cohort Study
This grant creates a national clinical research network of physical therapists for completion of the OSPRO cohort study
\$300,000

2014 – 2016 **Graduate research assistant**, Opportunity Fund Grant (PI: Harman)
Funder: University of Florida
Title: Comparative Effectiveness of Musculoskeletal Pain Treatment in the Medicare Population

The purpose of this project is to use data from Medicare Current Beneficiary Survey with matching Medicare healthcare claims to conduct health services research to examine comparative effectiveness of treatments for musculoskeletal pain.

- 2015 – 2016 **Awardee**, Promotion of Doctoral Studies (PODS) Level I Scholarship
Funder: Foundation for Physical Therapy
Funding support for the coursework phase of post-professional doctoral studies.
\$7,500
- 2016 – 2017 **Awardee**, Promotion of Doctoral Studies (PODS) Level II Scholarship
Funder: Foundation for Physical Therapy
Funding support for the post-candidacy phase of post-professional doctoral studies.
\$15,000
- 2018 – 2019 **Principal Investigator**, Executive Director's Pathway for Supplemental Funding
Funder: Duke Clinical Research Institute
Title: Comorbidity Subgroups among Medicare Beneficiaries Seeking Healthcare for Knee OA
This project will identify common comorbidity subgroups among Medicare beneficiaries with knee OA as a precursor to comparative effectiveness studies.
\$15,000

Submitted/Pending

- 2018 **Co-Investigator**, Paris Patla Musculoskeletal Research Grant (PI: Cook)
Funder: Foundation for Physical Therapy
Title: Responders and Causal Mediators of a Behavioral Approach for Osteoarthritis
\$338,693
- 2018 **Co-investigator**, OREF/TAF Innovative and Accelerated Protocols for Rehabilitation of Orthopedic Injuries Research Grant (PI: Riboh)
Funder: Orthopaedic Research and Education Foundation (OREF)
Title: Designing Patient-Specific Pediatric Return-To-Play Criteria after ACLR
\$50,000
- 2018 **Co-Investigator**, Innovation Project Grant (PI: Horn)
Funder: Duke Institute for Health Innovation (DIHI)
Title: Visualization and Reporting of Patient-reported Outcome Measures in the EHR to Enhance Shared Decision-making
\$32,432
- 2018 **Principal Investigator**, Health Data for Action: Leveraging Health Data for Actionable Insights (Data Access Award)
Funder: Robert Wood Johnson Foundation
Title: Use of Real World Data to Inform Effective Pharmacological and Non-Pharmacological Management of Musculoskeletal Pain
- 2019 **Co-Investigator**, R03: PA-18-794 (PI: Cook)
Funder: Agency for Healthcare Research and Quality (AHRQ)
Title: To what extent do psychological factors explain the effect of pain on disability in a cohort of individuals with mild to moderate knee and hip OA?
- 2019 **Co-Investigator**, R34: PAR-18-417 (PI: Goertz)
Funder: NIH-National Center for Complementary & Integrative Health (NCCIH)

Title: Coordinated Multidisciplinary Partnerships for the Comprehensive Treatment of Osteoarthritis (COMPACT-OA)

2019 **Co-Investigator**, R34: PAR-18-417 (PI: Beneciuk)
Funder: NIH-National Center for Complementary & Integrative Health (NCCIH)
Title: Risk Stratified Care for Musculoskeletal Pain: Tailoring Interventions to Patient Needs

Education / Teaching Activities

Courses

2018 Title: A Primer on Musculoskeletal Screening
Co-Instructor, Doctor of Physical Therapy (DPT) Program, Duke University, Durham, NC

Teaching Assistant

University of Florida
2005 PHT 6187: Functional Anatomy I
2006 PHT 6188: Functional Anatomy II
2007 - 2008 PHT 6770: Musculoskeletal Disorders I
2013 - 2016 PHT 6605: Evidence-Based Practice I

Capstone Project Writing Mentor

2008 – 2013 University of Florida, Department of Physical Therapy, Gainesville, FL
PHT 6609: Evidence Based Practice III
2008 Jennifer Warsinske
2009 Kari Tofte, Robyn Goldman
2010 Heather Matheson
2011 Cori Dullnig, Mark Carberry
2013 Ashtyn Gibbs

Clinical Instructor

2008 Robyn Goldman, SPT - University of Florida
2009 Heather Matheson, SPT – University of Florida
2010 Christine Martin, SPT – Florida Gulf Coast University
2011 Jennifer “JJ” Junkin, SPT – University of St. Augustine – San Diego
2012 Penny Goldberg – University of St. Augustine – San Diego
2012 JT Mallary, Undergraduate Athletic Training– Methodist University

Consulting Work

2009 – 2013 University of Florida Athletic Association (UAA) Pre-rehabilitation Screenings: Women’s Soccer, Men’s Football, Women’s Basketball

Invited Lectures and Presentations

Lectures

2008 PET 5936: Orthopedic Considerations in Athletic Training. Undergraduate Athletic Training Program, University of Florida, Gainesville, FL
Title: Psychological Considerations in Rehabilitation

- 2008 - 2009 PHT 6770: Musculoskeletal Disorders II. Doctor of Physical Therapy Program, University of Florida, Gainesville, FL
Title: Operative techniques and post-operative rehabilitation considerations of the Shoulder
- 2010 PHT 6770: Musculoskeletal Disorders II. Doctor of Physical Therapy Program, University of Florida, Gainesville, FL
Title: Shoulder Unit (4 lectures)
- 2014 PHT 6605: Evidence-Based Practice I. Doctor of Physical Therapy Program, University of Florida, Gainesville, FL
Title: Accuracy of Diagnostic Tests
- 2013 - 2016 PHT 6605: Evidence-Based Practice I. Doctor of Physical Therapy Program, University of Florida, Gainesville, FL
Title: Searching for Scientific Literature
- 2018 - 2019 PT 722: Management of Health Care Delivery. Doctor of Physical Therapy Program, Duke University, Durham, NC.
Title: Using Data Analytics to Drive Value-Based Care

Scientific & Professional Presentations

- 2007 A Patient with Unilateral Upper Extremity Paresthesia: Determining the Source of Symptoms, Poster Presentation. APTA Combined Sections Meeting, Boston, MA.
- 2008 Identifying Impairments that Predict Function: A Preliminary Step in Developing Return-to-Sport Guidelines for ACL Reconstruction. 2008 SPTS Excellence in Research Platform Presentation. APTA Combined Sections Meeting, Nashville, TN.
- 2008 The Relationship of Physical Impairment, Pain, and Kinesiophobia to Disability in Patients with Shoulder Pathology. Platform Presentation. APTA Combined Sections Meeting, Nashville, TN.
- 2009 Clinical Factors that Differ between Return to Sport Status Groups in Patients with ACL Reconstruction. Platform Presentation. APTA Combined Sections Meeting, Las Vegas, NV.
- 2010 Pain-related Fear of Movement Contributes to Self-reported Disability in Patients with Foot and Ankle Pathology. Platform Presentation. APTA Combined Sections Meeting, San Diego, CA.
- 2010 Identification of Factors that Predict Return to Pre-injury Level of Sport Participation 1 Year Following ACL Reconstruction. Platform Presentation. APTA Combined Sections Meeting, San Diego, CA.
- 2010 Development of a Clinical Prediction Rule for Return to Sport Status One Year following Anterior Cruciate Ligament Reconstruction, Poster Presentation. AOSSM Annual Meeting, Providence, RI.
- 2011 Fear of Re-injury/Low Confidence 1 Year after ACL Reconstruction: High Prevalence and Altered Self-ratings. 2011 SPTS Excellence in Research Platform Presentation. APTA Combined Sections Meeting, New Orleans, LA.
- 2012 Psychosocial factors are related to resolution of knee impairments in early rehabilitation following ACL reconstruction. Platform Presentation, APTA Combined Sections Meeting, Chicago, IL.
- 2012 Activity Following ACL Reconstruction: What Do Patients Fear? Platform Presentation, APTA Combined Sections Meeting, Chicago, IL.
- 2012 Mentoring: Promoting Excellence through Residency/Fellowship Programs – Points of View, FPTA Annual Conference, Daytona Beach, FL.
- 2013 Preventing Injuries in Overhead Athletes. UF & Shands High School Outreach Symposium, Gainesville, FL.
- 2013 Identification of Individuals at Risk for Not Returning to Pre-injury Levels of Sports Participation after ACL Reconstruction Due to Fear of Re-Injury/Lack of Confidence. Platform Presentation, APTA Combined Sections Meeting, San Diego, CA.
- 2013 Quadriceps Strength Measures are Differentially Associated with Function after ACL Reconstruction. Platform Presentation, APTA Combined Sections Meeting, San Diego, CA.

- 2014 Derivation of a Prognostic Test-Item Cluster for Return to Sport Participation Status 1 Year Following ACL Reconstruction. Platform Presentation. APTA Combined Sections Meeting, Las Vegas, NV.
- 2014 First-Year Recovery Patterns Differ Among Return to Sport Status Groups Following ACL Reconstruction. Platform Presentation. APTA Combined Sections Meeting, Las Vegas, NV.
- 2014 Pain Intensity, Pain Catastrophizing, Kinesiophobia and Self-Reported Function in the First Year Following Anterior Cruciate Ligament Reconstruction. Poster Presentation. American Pain Society Annual Conference, Tampa, FL.
- 2015 Mediation Influences of Pain Self-Efficacy on Pain Catastrophizing: Evidence for Mediation and Moderation Roles in Outpatient Orthopedic Physical Therapy. Platform Presentation, APTA Combined Sections Meeting, Indianapolis, IN.
- 2015 Utilization of Pain Treatment Modalities among Medicare Beneficiaries. Poster Presentation. American Public Health Association Annual Meeting, Chicago, IL.
- 2015 The Chronic Pain Conundrum: Bridging Neuroscience and Clinical Practice, Shands Continuing Education Lecture Series, Gainesville, FL.
- 2016 Performance of the OSPRO Yellow Flag Screening Tool in the First Month of Physical Therapy: Value Added by Psychological Distress Monitoring. Platform Presentation, APTA Combined Sections Meeting, Anaheim, CA.
- 2016 Utilization of Non-pharmacological Treatment Approaches for Low Back Pain and Osteoarthritis among Medicare Beneficiaries. Poster Presentation, APTA Combined Sections Meeting, Anaheim, CA.
- 2016 Integration of the Patient Activation Measure (PAM) Into Post-Acute Clinical Rehabilitation Settings. Masters of Public Health Thesis Oral Presentation. University of Florida, Gainesville, FL.
- 2016 Risk Model Development for Additional Healthcare Use Following an Episode of Physical Therapy for Musculoskeletal Pain. CoHSTAR Summer Institute and Workshop, Boston, MA
- 2017 Advancing the Understanding of Healthcare Utilization and Costs among Patients with Musculoskeletal Pain. Dissertation Defense Presentation. PhD in Rehabilitation Science Program, University of Florida, Gainesville, FL.
- 2017 Predicting Outcomes that Matter: Lessons Learned from the OSPRO Cohorts. North Carolina Physical Therapy Association, Fall Conference, Winston-Salem, NC.
- 2017 Consistency of Factor Structure and Psychological Subgroups for the OSPRO-Yellow Flag Assessment Tool. Platform Presentation, APTA Combined Sections Meeting, San Antonio, TX.
- 2017 Predictors of Persistently High Healthcare Expenditures for Osteoarthritis. Poster Presentation, American Pain Society Annual Meeting, Pittsburgh, PA.
- 2017 Identification of Comorbidity Subgroups among Older Adults Seeking Healthcare for Musculoskeletal Pain. Poster Presentation, CoHSTAR Summer Workshop, Boston, MA.
- 2017 Prediction of Persistently High Healthcare Costs due to Musculoskeletal Pain. Durham VA Center for Health Services Research in Primary Care, Durham, NC.
- 2018 Risk Model Development for Additional Healthcare Use Following an Episode of Physical Therapy for Musculoskeletal Pain. Platform Presentation, APTA Combined Sections Meeting, New Orleans, LA.
- 2018 Do Pain Intensity and Disability Directly Influence Healthcare Utilization and Costs for Musculoskeletal Pain? Poster Presentation, International Association for the Study of Pain (IASP) 17th World Congress, Boston, MA
- 2018 Stepped and Stratified Care: Moving from Low Back Pain to Post-Surgical Rehabilitation. North Carolina Physical Therapy Association, Fall Conference, Greensboro, NC.
- 2019 Patient-Centered Outcomes: Domain Importance Predicts Health Care Utilization following Physical Therapy. Platform presentation. APTA Combined Sections Meeting, Washington, DC.
- 2019 Patient Subgrouping to Inform Treatment Pathway Development for a Comprehensive Osteoarthritis Care Program. Platform presentation. APTA Combined Sections Meeting, Washington, DC.
- 2019 Patient Subgrouping to Inform Treatment Pathway Development for a Comprehensive Osteoarthritis Care Program. Poster presentation. American Academy of Orthopaedic Surgeons (AAOS) Annual Meeting, Las Vegas, NV.
- 2019 Development of a Concise Lower Extremity Physical Performance Test Set for Return to Sport Decision-Making in Pediatric Populations. Poster presentation. Pediatric Research in Sports Medicine (PRiSM) Annual Meeting, Atlanta, GA.

- 2019 Challenges to Implementing Guideline Concordant Care for Low Back Pain: Update from a Pragmatic Trial in the Veteran's Health Administration System. Center on Health Services Training and Research (CoHSTAR) Summer Institute. Platform presentation. Providence, RI.
- 2019 Development of a Concise Lower Extremity Physical Performance Test Set for Return to Sport Decision-Making in Pediatric Populations. Poster presentation. AOSSM Annual Meeting, Boston, MA.
- 2019 North Carolina's Response to the Opioid Epidemic: Physical Therapy Can Make a Difference! Panel Discussant. North Carolina Physical Therapy Association Fall Conference, Wilmington, NC.
- 2019 Use of the OSPRO-ROS and YF as Part of Clinical Decision Making. Focus on Therapeutic Outcomes (FOTO) Clinical Outcomes Summit, Knoxville, TN

Community Service and Activities

- 2006 University of Florida, Department of Physical Therapy Nicaragua Service Learning Project, UNAN, Managua, Nicaragua, February
- 2009 - 2017 University of Florida College of Medicine Equal Access Clinic
- 2010 Hopital Sacre Couer, CRUDEM, Milot, Haiti
- 2012 Hopital Sacre Couer, CRUDEM, Milot, Haiti