Elizabeth Lane

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# Education

## PH. D | 08.2020 | University of Utah

* Major: Rehabilitation Sciences

## D.P.T | 05.2009 | Medical College of Georgia

* Major: Physical Therapy

## B.A. | 05.2006 | Auburn University

* Major: Psychology
* Minor: Spanish

# Experience

## Research Assistant Faculty | University Of Utah | 1.2020-Present

## Director, Orthopedic Residency | Benchmark Rehab Institute| 12.2015-12.2019

**Study Coordinator** | University Of Utah | 06.2015-Present

**Fellowship, Orthopedic Manual Physical Therapy** | Evidence In Motion | 2013 -2015

**Residency, Orthopedic Physical Therapy** | Evidence In Motion | 2009-2010

**Clinician (Staff Pt & Clinic Director)** | Benchmark Rehab Partners | 2009-2015

**Reviewer** |Journal Of Orthopedic And Sports Physical Therapy; Physiotherapy Theory And Practice | 2017-Present

# Certifications

### **CrossFit Level 2 Trainer|** 2023

### **CrossFit Level 1 Trainer|** 2020

### **Therapeutic Pain Specialist (TPS)|** 2017

### **Fellow, Orthopedic Manual Physical Therapy (AAOMPT**)| 2015

### **Certified Strength and Conditioning specialist (CSCS)**| 2013

### **Functional Movement Screen (FMS)**| 2013

### **Selective Functional Movement Assessment (SFMA)**| 2013 & 2021

### **Spinal Manipulative Therapist (cert. SMT)** | **American Academy of Manual Therapy**| 2012

### **Dry Needling (cert. DN) | American Academy of Manual Therapy**| 2012

### **Board Certified, Orthopedic Physical Therapy (OCS**)| 2011 & 2021

# Awards

### Clinician of the year| Benchmark Rehab Partners| 2010 & 2014

Rose Excellence in Research Recipient| Academy of Orthopedics, APTA |2023

# Teaching Experience

### Primary Faculty, University of Utah, Musculoskeletal Content|2020-PRESENT

### Adjunct Faculty, University of Utah, Musculoskeletal Content|2015-2019

### Instructor, Evidence in Motion, Musculoskeletal Content |2015-PRESENT

### Part-Time Faculty, Georgia State University| 2014-2015

### Core Faculty, BRI Orthopedic Residency| 2013-2020

### Director, BRI Orthopedic Residency| 2016-2019

### Core Faculty, BRI Orthopedic Manual Therapy Fellowship| 2015-2020

### Developer and Instructor of Musculoskeletal and Dry Needling CE Courses| 2013-PRESENT

### APTA-Credentialed Clinical Instructor| 2010

# Publications/Presentations

### McLaughlin, K. H., Fritz, J. M., Minick, K. I., Brennan, G. P., McGee, T., **Lane, E**., ... & Skolasky, R. L. (2023). Examining the Relationship between Individual Patient Factors and Substantial Clinical Benefit from Telerehabilitation among Patients with Chronic Low Back Pain. *Physical Therapy*, pzad180. Impact Facto (IF)=3.8

### Fritz, J. M., Greene, T., Brennan, G. P., Minick, K., **Lane, E**., Wegener, S. T., & Skolasky, R. L. (2023). Characterizing modifications to a comparative effectiveness research study: the OPTIMIZE trial—using the Framework for Reporting Adaptations and Modifications to Evidence-based Interventions (FRAME). *Trials*, *24*(1), 1-11. IF = 2.5

### Cook, C. E., Rhon, D. I., Bialosky, J., Donaldson, M., George, S. Z., Hall, T., **Lane E** ... & Puentedura, E. J. (2023). Developing manual therapy frameworks for dedicated pain mechanisms. *JOSPT Open*, *1*(1), 48-62. IF=6.1

### Fritz, J. M., Greene, T., Brennan, G. P., Minick, K., **Lane, E**., Wegener, S. T., & Skolasky, R. L. (2023). Characterizing modifications to a comparative effectiveness research study: the OPTIMIZE trial—using the Framework for Reporting Adaptations and Modifications to Evidence-based Interventions (FRAME). *Trials*, *24*(1), 1-11. IF = 2.5

### Skolasky, R. L., Kimball, E. R., Galyean, P., Minick, K. I., Brennan, G., McGee, T., **Lane E**., ... & Fritz, J. M. (2022). Identifying Perceptions, Experiences, and Recommendations of Telehealth Physical Therapy for Patients With Chronic Low Back Pain: A Mixed Methods Survey. *Archives of physical medicine and rehabilitation*, *103*(10), 1935-1943. IF=4.0

Fritz, J. M., Minick, K. I., Brennan, G. P., McGee, T., **Lane, E**., Skolasky, R. L., ... & Hunter, S. J. (2022). Outcomes of telehealth physical therapy provided using real-time, videoconferencing for patients with chronic low back pain: a longitudinal observational study. *Archives of physical medicine and rehabilitation*, *103*(10), 1924-1934. IF=4.0

**Lane, E**., Magel, J. S., Thackeray, A., Greene, T., Fino, N. F., Puentedura, E. J., ... & Fritz, J. M. (2022). Effectiveness of training physical therapists in pain neuroscience education for patients with chronic spine pain: A cluster-randomized trial. *Pain*, *163*(5), 852-860. IF=7.4

Fritz, J. M., Lane, E., Minick, K. I., Bardsley, T., Brennan, G., Hunter, S. J., ... & Skolasky, R. L. (2021). Perceptions of Telehealth Physical Therapy Among Patients with Chronic Low Back Pain. *Telemedicine Reports*, *2*(1), 258-263 IF=1.5

Rassu, F. S., McFadden, M., Aaron, R. V., Wegener, S. T., Ephraim, P. L., **Lane, E**., ... & Skolasky, R. L. (2021). The Relationship Between Neighborhood Deprivation and Perceived Changes for Pain-Related Experiences Among US Patients with Chronic Low Back Pain During the COVID-19 Pandemic. *Pain Medicine*, *22*(11), 2550-2565. IF=3.75

Skolasky RL, Wegener ST, Aaron RV, Ephraim P, Brennan G, Greene T, **Lane E**, Minick K, Hanley AW, Garland EL, Fritz JM. The OPTIMIZE Study: Protocol of a pragmatic sequential multiple assessment randomized trial of nonpharmacologic treatment for chronic, nonspecific low back pain. BMC Musculoskelet Disord. 21 (2020): 1-14. IF=2.3

**Lane EF**, Fritz JM, Greene T, Maddox CD. The effectiveness of training physical therapists in pain neuroscience education on patient reported outcomes for patients with chronic spinal pain: a study protocol for a cluster randomized controlled trial. BMC Musculoskelet Disord*.* (2018) 19(1), 1-8. IF=2.3

Fritz JM, Sharpe J, **Lane E**, et al. Optimizing Treatment Protocols for Spinal Manipulative Therapy: Protocol for a Phased, Factorial Randomized Trial. *BMC Trials.* Trials 19.1 (2018): 1-12. IF=2.5

### **Lane EF**, Clewley DJ, Koppenhaver S. "Complaints of Upper Extremity Numbness & Tingling Relieved with Dry Needling of the Teres Minor & Infraspinatus - A Case Report." *JOSPT* 47.4 (2017): 287-292. IF=6.1

Chong RKY, **Lane EF** et al. "Specific interference between a cognitive task and sensory organization for stance balance control in healthy young adults: visuospatial effects." *Neuropsychologia* 48.9 (2010): 2709-2718. IF=2.6

Platform Presentation: CSM: The Effectiveness Of Training Physical Therapists In Pain Neuroscience Education On Outcomes For Patients With Chronic Neck Or Back Pain|2021

APTA Learning Center: Assessment and Treatment of Cervicogenic Dizziness|2017

Educational session: AAOMPT Conference. Use of Manual therapy for chronic pain|2017

Educational session: APTA NEXT Conference. Cervicogenic headache|2016

Educational session: AAOMPT Conference. Medical Screening for the OMPT|2016

Educational session: AAOMPT Conference. Dry needling integrating pain science education|2015

Abstract: Utah Physical Therapy Association Fall Meeting. Dry needling and shoulder pain|2015

Abstract: NEXT 2015. Dry needling and shoulder pain|2015

Abstract: CSM 2018. Dry Needling for Shoulder Pain, Systematic Review|2018

# Grant Support

# PCORI PI (Fritz) 9/1/2018-3/31/2026

# OPTIMIZE Low Back Pain

# This is a multi-center, multi-randomization trial for those with chronic back pain that seeks to understand the impact and sequencing of multiple treatments (physical therapy, cognitive behavioral therapy, and mindfulness).

### 10044388 (APTA) PI (Lane) 5/1/2017-4/30/2019

### Effectiveness of Pain Neuroscience Education

### This cluster randomized control trial aims to determine the effectiveness of training physical therapists in the use of pain neuroscience education for patients with chronic neck or back pain.

### 1UH3AT009293-01 (NIH/NCCIH) PI (Fritz) 8/1/2016 – 7/31/2019

### Optimization of Spinal Manipulative Therapy (SMT) Protocols

### Our overall goal in this proposal is to optimize SMT treatment protocols for patients with low back pain. The optimization strategy will evaluate SMT combined with other treatments known to modulate the same signals that underlie the clinical effects of SMT assessing both mechanistic (stiffness, lumbar multifidus activation) and patient-centered (function and pain) outcomes.

### 1R18HS022641-01 (AHRQ) PI (Fritz) 9/4/2014 – 8/31/2018

### Management Strategies for Patients with Low back Pain and Sciatica

### The major goals of this randomized trial are to compare the effectiveness and costs associated with adding physical therapy to primary care management during the first 4 weeks of care for patients with LBP and sciatica. Outcomes are assessed across a 1-year follow-up and include measures of disability, pain, satisfaction, healthcare utilization and costs.