#### Current 7/1/17

# Grant E. Norte, PhD, AT, ATC, CSCS

# **CONTACT INFORMATION**

<u>Home</u>

University of Toledo 10614 River Oaks Dr. 2801 W. Bancroft St, Mail Stop 119 Perrysburg, OH 43551

Toledo, OH 43606 Cell: 951-529-6923

Office: 419-530-5305 Email: grant.norte@gmail.com
Email: grant.norte@utoledo.edu

**EDUCATION** 

**Doctor of Philosophy** 

University of Virginia; Charlottesville, VA May 2016

Major Area of Study: Sports Medicine

Dissertation: Quadriceps Function in ACL Reconstructed Patients With and Without Knee

Osteoarthritis

**Master of Education** 

University of Virginia; Charlottesville, VA

August 2009

Major Area of Study: Athletic Training

Thesis: Relationship between Transcranial Magnetic Stimulation and Percutaneous

Electrical Stimulation in Determining the Quadriceps Central Activation

**Bachelor of Science** 

California Lutheran University; Thousand Oaks, CA
May 2008

Major Area of Study: Exercise Science/ Sports Medicine; Emphasis in Athletic Training

PROFESSIONAL EXPERIENCE

**Assistant Professor** 

School of Exercise and Rehabilitation Sciences; Athletic Training Program

August 2016-Present

University of Toledo; Toledo, OH

Research Coordinator August 2014-May 2016

School of Medicine; Department of Orthopaedic Surgery, Sports Medicine Division

University of Virginia; Charlottesville, VA

Research Assistant August 2012-May 2016

Curry School of Education; Department of Kinesiology; Exercise & Sport Injury Lab

University of Virginia; Charlottesville, VA

Head Athletic Trainer August 2010-June 2012

Department of Athletics, Division of Student Affairs

State University of New York at New Paltz; New Paltz, NY

Physician Extender Athletic Training Fellow June 2009-July 2010

The Steadman Clinic; Vail, CO

Head Athletic Trainer August 2009-January 2010

Eagle Valley High School; Gypsum, CO

Department of Athletics University of Virginia; Charlottesville, VA

#### TEACHING EXPERIENCE

#### **Instructor of Record**

- Pathomechanics of Musculoskeletal Injury, University of Toledo (Graduate 1 semester)
- Rehabilitation of Athletic Injuries; University of Toledo (Undergraduate 1 semester)
- Athletic Injuries Laboratory; University of Virginia (Undergraduate 2 semesters)

#### **Co-Instructor**

- Clinical Biomechanics; University of Toledo (Graduate 1 semester)
- Master's Thesis Seminar; University of Toledo (Graduate 2 semesters)
- Athletic Injuries; University of Virginia (Undergraduate 2 semesters)

# **Teaching Assistant**

- Emergency Medical Care; University of Virginia (Undergraduate 1 semester)
- Anatomy and Physiology Laboratory; University of Virginia (Undergraduate 1 semester)
- Master's Thesis Seminar; University of Virginia (Graduate 7 semesters)

#### **Guest Lecturer**

- Pathophysiology and Rehabilitation of Athletic Injuries; University of Virginia (Graduate 2 semesters)
- Clinical Biomechanics; University of Virginia (Graduate 2 semesters)
- Emergency Medical Care; University of Virginia (Undergraduate 4 semesters)
- Annual Sports Medicine Athletic Team Coverage; University of Virginia (1 meeting)
- Therapeutic Exercise in Athletic Training; Marist College (Undergraduate 1 semester)
- Physical Education, Sports Medicine; Eagle Valley High School (High School 2 semesters)

#### **Clinical Instruction**

• CAATE Approved Clinical Instructor; Marist College

2010-2012

#### INVITED PRESENTATIONS/ CLINICAL WORKSHOPS

- 1. Course Design Institute. University of Toledo, Toledo, OH. May 2017.
- 2. First Annual International Electroencephalography (EEG) Workshop. University of Flensburg, Germany. May 2017 (Invitation only).
- 3. **Norte GE**. Neuromuscular Adaptations Following ACL Reconstruction. <u>ORAL PRESENTATION</u>. Primary Care Sports Medicine Fellowship Grand Rounds. Toledo, OH. November 2016.
- Norte GE, Long S, Norte S. Treatment Considerations for Lateral Ankle Sprains. <u>ORAL PRESENTATION/DEMONSTRATION</u>. University of Toledo Doctor of Physical Therapy Program. PHYT 6500 Musculoskeletal Rehabilitation I. Toledo, OH. November 2016.
- 5. **Norte GE**. Neurophysiological Changes After ACL Reconstruction. <u>ORAL PRESENTATION</u>. Art and Science of Sports Medicine Annual Symposium. Charlottesville, VA. June 2015
- 6. **Norte GE**, Goetschius J, Slater L. Lower Extremity Assessment Protocol (LEAP) Following ACL Reconstruction: Evidence to Guide Return to Sport Decision-Making. <u>WORKSHOP</u>. Art and Science of Sports Medicine Annual Symposium. Charlottesville, VA. June 2015

- 7. **Norte GE**, Hart JM. Sensorimotor Adaptations Following ACL Reconstruction: Implications for an Evidence Based Treatment Approach? <u>PODIUM PRESENTATION: EATA GRANT PRESENTATION EVIDENCE BASED PRACTICE PROGRAM\*</u>. Eastern Athletic Trainers' Association Annual Meeting. Philadelphia, PA. January 2015
- 8. **Norte GE**. Arthrogenic Muscle Inhibition: Measurement Techniques and Interpretation. <u>ORAL PRESENTATION</u>. Art and Science of Sports Medicine Annual Symposium. Charlottesville, VA. June 2014
- 9. **Norte GE**, Goetschius J. Neurophysiology Lab: Measuring Muscle Inhibition; 3D Motion Capture. WORKSHOP. Art and Science of Sports Medicine Annual Symposium. Charlottesville, VA. June 2014
- 10. **Norte GE**. Sensorimotor Assessment Techniques in the Lower Extremity. <u>ORAL PRESENTATION</u>. Art and Science of Sports Medicine Annual Symposium. Charlottesville, VA. June 2013
- 11. **Norte GE**, Slater L. Instrumented 3D Motion Capture. <u>WORKSHOP</u>. Art and Science of Sports Medicine Annual Symposium. Charlottesville, VA. June 2013

# PUBLISHED MANUSCRIPTS IN PEER-REVIEWED JOURNALS

- 1. **Norte GE**, Hertel J, Saliba S, Diduch D, Hart JM. Quadriceps Neuromuscular Function in ACL Reconstructed Patients With and Without Knee Osteoarthritis: A Cross-Sectional Study [accepted: J Athl Train]
- 2. **Norte GE**, Hertel J, Saliba S, Diduch D, Hart JM. Quadriceps and Patient Reported Function in ACL Reconstructed Patients: A Principal Component Analysis. *J Sport Rehabil*. 2017 Jul 17:1-26 [Epub ahead of print]. *Impact Factor: 1.612*
- 3. **Norte GE**, Knaus KR, Kuenze C, Kew M, Handsfield G, Meyer C, Blemker SS, Hart JM. MRI-Based Assessment of Lower Extremity Muscle Volumes in Patients Before and After ACL Reconstruction. *J Sport Rehabil*. 2017 Mar 14:1-40 [Epub ahead of print]. *Impact Factor: 1.612*
- 4. DiFabio M, Slater LV, **Norte G**, Goetschius J, Hart JM, Hertel J. Relationships of Functional Tests Following ACL Reconstruction: Exploratory Factor Analyses of Lower Extremity Assessment Protocol. *J Sport Rehabil*. 2017 Feb 9:1-24 [Epub ahead of print]. *Impact Factor: 1.612*
- 5. Werner B, **Norte GE**, Park J, Miller MD, Hart JM. Peroneal Nerve Dysfunction Due to Multiligament Knee Injury: Patient Characteristics and Comparative Outcomes after Posterior Tibial Tendon Transfer. *Clin J Sports Med.* 2017 Jan; 27(1):10-19 *Impact Factor:* 2.308
- 6. **Norte GE**, Frye J, Hart JM. Superimposed Burst Technique is Reliable in Patients with Patellofemoral Pain: A Technical Report. *J Athl Train*. 2015 Nov;50(11):1207-11. *Impact Factor*: 2.478
- 7. **Norte GE**, Saliba SA, Hart JM. Immediate Effects of Therapeutic Ultrasound on Quadriceps Spinal Reflex Excitability in Patients with Knee Injury. *Arch Phys Med Rehabil*. 2015 Sep;96(9):1591-8. *Impact Factor: 3.045*
- 8. **Norte GE**, Kuenze C, Hart JM. Closed Chain Assessment of Quadriceps Activation Using the Superimposed Burst Technique. *J Electromyogr Kinesiol*. 2014 June;24(3):341-7. *Impact Factor*: 1.530
- 9. **Norte GE**, West A, Gnacinski MR, Van der Meijden O, Millett PJ. On-Field Management of the Acute Anterior Glenohumeral Dislocation. *Phys Sportsmed*. 2011 Sep;39(3):151-62. *Impact Factor: 1.144*

- 10. Tsang KKW, **Norte GE**, Hand JW. The Assessment of Hand Volume Using Modified Volumetric Technique. *J Test Eval*. 2011. *Impact Factor:* 0.423
- 11. **Norte GE**, Pietrosimone BG, Hart JM, Hertel J, Ingersoll CD. Relationship between Transcranial Magnetic Stimulation and Percutaneous Electrical Stimulation in Determining the Quadriceps Central Activation. *Am J Phys Med Rehabil*. 2010 Dec;89(12):986-996. *Impact Factor*: 2.064

# NON PEER-REVIEWED PUBLICATIONS

- 1. **Norte GE**, Saliba SA, Hart JM. Immediate Effects of Therapeutic Ultrasound on Quadriceps Spinal Reflex Excitability in Patients with Knee Injury. Selected for OrthoEvidence appraisal as Level II evidence. December 2015.
- 2. **Norte GE**. AANA Advanced Arthroscopy: The Foot and Ankle. Authors: Annunziato Amendola and James Stone. Elsevier, Inc. Completed March 2011. Printed in NATA News: November, 2011

# MANUSCRIPTS IN PROGRESS

- 1. Frendt T, Donovan L, Armstrong C, McLoughlin T, Murray AM, **Norte GE**. Influence of Dual-Tasking and Anticipation on Cutting Biomechanics in Healthy Males [preparation for *Med Sci Sport Exerc*]
- 2. Lipinski C, Donovan L, Armstrong C, McLoughlin T, **Norte GE**. Surface Electromyography of the Flexor Carpi Ulnaris and Flexor Digitorum Superficialis During Progressive Elbow Rehabilitative Exercises [preparation for *J Electromyogr Kinesiol*]
- 3. Menzer H, Slater L, Diduch D, Miller M, Norte GE, Goetschius J, Hart JM. The Utility of Objective Limb Symmetry Strength and Functional Performance to Predict Subjective Outcomes after Anterior Cruciate Ligament Reconstruction. [in review: Am J Sports Med]
- 4. **Norte GE**, Hertel J, Saliba S, Diduch D, Hart JM. Relationship Between Quadriceps Function and Patient Reported Outcomes in ACL Reconstructed Patients With and Without Knee Osteoarthritis [in review: J Athl Train]
- 5. Dempsey I, **Norte GE**, Hall M, Werner B, Diduch DR, Hart JM. Relationship Between Physical Therapy Characteristics, Surgical Procedure, and Clinical Outcomes in Patients after ACL Reconstruction [in review: J Sport Rehabil]
- 6. Etier BE, **Norte GE**, Gleason MV, Richter DL, Pugh K, Thomson KB, Slater LV, Hart JM, Brockmeier SF, Diduch DR. A Comparison of Cervical Spine Motion Following Immobilization with Traditional Spine Board and Full-Body Vacuum-Mattress Splint [preparation for Orthop J Sports Med]
- 7. Williamson C, Norte GE, Broshek D, Hart JM, Resch J. Return-To-Learn Following Sport Concussion: A Survey of Current Practice of Certified Athletic Trainers [in review: J Athl Train]
- 8. **Norte GE**, Knaus KR, Meyer C, Blemker SS, Hart JM. MRI-Based Assessment of Lower Extremity Muscle Volumes in Patients With Meniscal Pathology and Knee Osteoarthritis [preparation for Med Sci Sport Exerc]
- 9. **Norte GE**, Goetschius J, Slater L, Hart JM. Influence of Gender, Graft Type, and Meniscal Injury on Clinical Outcomes in ACL Reconstructed Patients at the Time of Physician Clearance [preparation for Am J Sport Med]
- 10. Goetschius J, **Norte GE**, Slater L, Hart JM. Asymmetries in Lower-Extremity Strength And Fatigability In Patients Recovering From ACL Reconstruction [preparation for Med Sci Sports Exerc]

11. **Norte GE**, Goetschius J, Hart JM. Clinical and Laboratory Based Measurements to Assess Sensorimotor Impairment Following Lower Extremity Joint Injury [preparation for J Athl Train]

# REFEREED ABSTRACT PRESENTATIONS

- 1. **Norte GE**, Hertel J, Saliba SA, Diduch DR, Hart JM. Chronicity of Quadriceps Function in ACL Reconstructed Patients With and Without Knee Osteoarthritis. <u>ORAL PRESENTATION</u>. National Athletic Trainers' Association Annual Meeting. Athletic Trainers' Osteoarthritis Consortium. Houston, TX. June 2017.
- 2. **Norte GE**, Hertel J, Saliba SA, Diduch DR, Hart JM. Relationship Between Quadriceps Function and Patient Reported Outcomes in ACL-R Patients With and Without Osteoarthritis. <u>ORAL PRESENTATION</u>. American College of Sports Medicine Annual Meeting. Denver, CO. May 2017.
- 3. Solaas HR, Norte GE, Saliba SA, Hart JM. Physical Activity Influences the Relationship Between Lower Extremity Function and Fear of Movement After ACL Reconstruction. <a href="https://doi.org/10.11/10/2017/10.15">THEMATIC POSTER PRESENTATION</a>. National Athletic Trainers' Association Annual Meeting. Houston, TX. June 2017.
- 4. Donner C, **Norte GE**, Resch J, Hart JM. Performance Tracking Over a Single Season in Male Collegiate Soccer Players. <u>RAPID FIRE PRESENTATION</u>. National Athletic Trainers' Association Annual Meeting. Houston, TX. June 2017.
- 5. Bodkin SG, Slater LV, **Norte GE**, Goetschius J, Hart JM. Predictors of Outcomes after ACL Reconstruction Differ Based on Meniscus Involvement. <u>POSTER PRESENTATION</u>. American College of Sports Medicine Annual Meeting. Denver, CO. May 2017.
- 6. Dempsey IJ, **Norte GE**, Goetschius J, Slater LV, Werner BC, Diduch, DR, Hart J. Relationship between Physical Therapy and Clinical Outcomes in Patients with ACL Reconstruction. Presented at <u>Annual Francis Shen Resident Research Symposium University of Virginia</u>, June 22, 2017. Charlottesville, VA
- 7. **Norte GE**, Knaus KR, Kuenze CM, Handsfield GG, Meyer CH, Blemker SS, Hart JM. MRI-Based Assessment of Lower Extremity Muscle Volumes in Patients Before and After ACL Reconstruction. <a href="https://doi.org/10.108/jnea.2016/">THEMATIC POSTER PRESENTATION</a>. National Athletic Trainers' Association Annual Meeting. Baltimore, MD. June 2016.
- 8. McMillen M, **Norte GE**, Hertel J, Hart JM. Quadriceps Function in ACL Reconstructed Patients With and Without a History of Knee Osteoarthritis. <u>POSTER PRESENTATION</u>. National Athletic Trainers' Association Annual Meeting. Baltimore, MD. June 2016.
- 9. Williamson C, **Norte GE**, Hart JM, Broshek DK, Resch J. Return-to-Learn Following Sport Concussion: A Survey of Current Practice of Athletic Trainers. <u>RAPID FIRE PRESENTATION</u>. National Athletic Trainers' Association Annual Meeting. Baltimore, MD. June 2016.
- Pugh K, Norte GE, Etier BE, Gleason MV, Richter DL, Thomson KB, Slater LV, Hart JM, Brockmeier SF, Diduch DR. Cervical Spine Motion During Removal of Football Equipment. <u>ORAL PRESENTATION</u>. National Athletic Trainers' Association Annual Meeting. Baltimore, MD. June 2016.
- 11. Thomson KB, **Norte GE**, Etier BE, Gleason MV, Richter DL, Pugh K, Slater LV, Hart JM, Brockmeier SF, Diduch DR. A Comparison of Cervical Spine Motion Following Immobilization with Traditional Spine Board and Full-Body Vacuum-Mattress Splint. <u>ORAL PRESENTATION</u>. National Athletic Trainers' Association Annual Meeting. Baltimore, MD. June 2016.

- 12. **Norte GE**, Knaus KR, Kew M, Feger MA, Slater LV, Kuenze CM, Meyer CH, Blemker SS, Hart JM. MRI-Based Assessment of Lower Extremity Muscle Volumes in Patients with Meniscal Pathology and Knee Osteoarthritis. <u>POSTER PRESENTATION</u> American College of Sports Medicine Annual Meeting. Boston, MA. May 2016.
- 13. Glaviano N, **Norte GE**, Kew M, Hart JM. Rehabilitation Rates Following Anterior Cruciate Ligament Reconstruction. <u>POSTER PRESENTATION</u>. American College of Sports Medicine Annual Meeting. Boston, MA. May 2016.
- Dempsey I, Norte GE, Hall M, Hart JM. Relationship Between Physical Therapy and Outcomes in ACL Reconstructed Individuals. <u>DIGITAL POSTER PRESENTATION</u>. Virginia Orthopaedic Society Annual Meeting. Williamsburg, VA. April 2016.
- 15. **Norte GE**, Saliba SA, Hart JM. Effects of Therapeutic Ultrasound on Quadriceps Spinal Reflex Excitability. <a href="PODIUM PRESENTATION">PODIUM PRESENTATION</a>. National Athletic Trainers' Association Annual Meeting. St. Louis, MO. June 2015.
- 16. Glaviano N, Saliba S. Patterned Electrical Neuromuscular Stimulation Improves Hip Muscle Activation and Pain in Individuals with Patellofemoral Pain. <u>THEMATIC POSTER PRESENTATION</u>. National Athletic Trainers' Association Annual Meeting. June 2015. [presented by **Norte GE**]
- 17. Richbourg C, **Norte GE**, Wintringham C, Park J, Hart JM, Hertel J. Characterization of Clinical Measures in Patients with Posterior Tibial Tendon Dysfunction. <u>POSTER PRESENTATION</u>. National Athletic Trainers' Association Annual Meeting. St. Louis, MO. June 2015.
- 18. **Norte GE**, Goetschius J, Slater L, Hart JM. Clinical Limb Asymmetries are Present in Patients 6 Months Following ACL Reconstruction. <u>THEMATIC POSTER</u>. American College of Sports Medicine Annual Meeting. San Diego, CA. May 2015.
- 19. Pelland C, BME 4280, MAE 4280, Virgilio K, Miller J, Goetschius J, Slater L, **Norte GE**, Stern A, Blemker S. A Comprehensive Meta-Analysis of Skeletal Muscle Architecture Performed by Undergraduate BME Course. <u>POSTER PRESENTATION</u>. Biomedical Engineering Annual Meeting. San Antonio, TX. Oct 2014.
- 20. Norte GE, Mitha Z, Kuenze C, Read, K, Handsfield G, Blemker S, Hertel J, Hart JM. Thigh Muscle Volume in Relation to Knee Extensor Torque, Quadriceps Activation, and Patient Reported Outcomes in ACL Deficient Patients. <u>THEMATIC POSTER PRESENTATION</u>. National Athletic Trainers' Association Annual Meeting. Indianapolis, IN. June 2014. <u>PODIUM PRESENTATION</u>. Mid-Atlantic Athletic Trainers' Association Annual Meeting. Virginia Beach, VA. May 2014.
- 21. Mitha Z, **Norte GE**, Kuenze C, Read, K, Handsfield G, Blemker S, Hertel J, Hart JM. Lower Extremity Muscle Volumes in ACL Deficient Patients. <u>POSTER PRESENTATION</u>. National Athletic Trainers' Association Annual Meeting. Indianapolis, IN. June 2014.
- 22. Werner B, **Norte GE**, Miller MD, Park J, Hart JM. Peroneal Nerve Injury in Multiligament Knee Injury: Comparative Outcomes after Posterior Tibial Tendon Transfer. <u>POSTER PRESENTATION</u>. American Academy of Orthopaedic Surgeons Annual Meeting. New Orleans, LA. March 2014.
- 23. **Norte GE**, Kuenze C, Roberts D, Hart JM. Closed Chain Assessment of Quadriceps Activation Using the Superimposed Burst Technique. <u>POSTER PRESENTATION</u>. National Athletic Trainers' Association Annual Meeting. Las Vegas, NV. June 2013.
- 24. Benson S, **Norte GE**. Kienböck's Disease in a Collegiate Softball Player. <u>PODIUM PRESENTATION</u>. National Athletic Trainers' Association Annual Meeting. Las Vegas, NV. June 2013.

- 25. **Norte GE**, West A, Gnacinski MR, Millett PJ. Management of the Acute Anterior Glenohumeral Dislocation: On and Off the Field. <u>FEATURE PRESENTATION</u>. National Athletic Trainers' Association Annual Meeting. New Orleans, LA. June 2011. <u>PODIUM PRESENTATION</u>. Rocky Mountain Athletic Trainers' Association Meeting. Denver, CO. April 2010.
- 26. **Norte GE**, Pietrosimone BG, Hart JM, Hertel J, Ingersoll CD. Relationship between Transcranial Magnetic Stimulation and Percutaneous Electrical Stimulation in Determining the Quadriceps Central Activation. <a href="POSTER PRESENTATION: NATAREF MASTERS POSTER AWARD FINALIST">POSTER PRESENTATION: NATAREF MASTERS POSTER AWARD FINALIST</a>. National Athletic Trainers' Association Annual Meeting. Philadelphia, PA. June 2010.
- 27. Tsang KKW, Norte GE. The Efficacy of Ice and Microcurrent Stimulation on Reducing Pain Associated with Delayed-Onset Muscle Soreness. <u>POSTER PRESENTATION</u>. National Athletic Trainers' Association Annual Meeting. Saint Louis, MO. June 2008. Far West Athletic Trainers' Association Meeting. Las Vegas, NV. May 2007. <u>PODIUM PRESENTATION: SWENSON RESEARCH FELLOWSHIP</u>. California Lutheran University Research Symposium. Thousand Oaks, CA. March 2007.
- 28. Tsang KKW, **Norte GE**, Hand JW. Precision and Reliability of a Modified Volumetric Technique on the Assessment of Hand Volumes. <u>POSTER PRESENTATION</u>. National Athletic Trainers' Association Annual Meeting. Saint Louis, MO. June 2008. Far West Athletic Trainers' Association Annual Meeting. Las Vegas, NV. May 2007.

# INTRAMURAL FUNDING & RESEARCH SUPPORT (Denotes \*principal investigator, § study coordinator)

Source: University of Toledo Interdisciplinary Research Initiation Award (\$51,037) – Unfunded\*

PI: Norte GE, Glaviano NR, Siparsky PN, Sohn DH

Role: Principal Investigator Period: May 2017 – May 2018

Description: The Interdisciplinary Research Initiation Award is given to encourage and develop

interdisciplinary research. This project aims to identify patients at risk for returning to active lifestyles after ACL reconstruction, and to begin to establish normative data based on specific

sub-sets of these patients with regard to gender and level of competition.

Source: Foy & Phyllis Penn Kohler Fund for International Studies (\$790.00)\*

PI: Norte GE

Role: Principal Investigator

Period: 2016-2017

Description: The Kohler fund is awarded to support international travel and research. The intent of this project

is to travel to the University of Paderborn, DE to further my knowledge of EEG acquisition and analysis by working with a known expert in the field of sports medicine and neuroscience research, with the goal of effectively incorporating a new technique into my research agenda.

Source: University of Virginia – Curry School of Education (\$990.00)\*

Title: Quadriceps Function Following ACL Reconstruction

PI: **Norte GE**, Hart JM Role: Co-Principal Investigator

Period: 2015-2016

Description: The UVA IDEA fund, in collaboration with the Office for Diversity and Equity, provides action-

oriented leadership and support to University initiatives in order to ensure that the values of inclusion, diversity, equity, and access are promoted. This award is reserved for the Doctoral Student Dissertation, and is being used to support work investigating measures of quadriceps

function in ACLR patients with and without knee osteoarthritis.

Source: University of Virginia – School of Medicine, Department of Orthopaedic Surgery (\$13,590.00)§

Title: Tibial Tunnel Placement for ACL Reconstruction: A Prospective, Randomized Controlled

Clinical Trial

PI: Miller MD

Role: Study Coordinator Period: 2015-Current

Description: Multi-center trial to investigate the influence of tibial tunnel placement (anterior vs. posterior)

during ACLR on patient reported outcomes, and clinical measures of laxity and strength

Source: University of Virginia – Center for Undergraduate Excellence (\$5,000.00) – Unfunded\*

Title: Chronicity of Gait Biomechanics in ACL Reconstructed Patients

PI: **Norte GE**, Hart JM Role: Co-Principal Investigator

Period: 2014-2015

Description: The Double Hoo research grant award supports pairs of undergraduate and graduate scholars.

Knee joint biomechanics following ACLR via 3-D motion capture.

# EXTRAMURAL FUNDING & RESEARCH SUPPORT (Denotes \*principal investigator, § study coordinator)

Source: American Society for Metabolic and Bariatric Surgery (\$25,000) – In review

PI: Fourman M Role: Co-Investigator

Period: August 2017 – August 2018

Description: Surface electromyography as a measure of surgeon muscle fatigue during robotic and

laparoscopic bariatric surgical procedures.

Source: Great Lakes Athletic Trainers' Association (\$1,450)\*

PI: Norte GE, Scheurer S
Role: Principal Investigator
Period: June 2017 – June 2018

Description: Research to investigate the relationship between corticomotor excitability and quadriceps

neuromuscular function in patients following ACL reconstruction.

Source: National Center of Neuromodulation for Rehabilitation (\$37,500) – Unfunded\*

PI: Norte GE, Glaviano NR, Ingersoll CD

Role: Principal Investigator Period: July 2017 – July 2018

Description: Influence of transcutaneous electrical nerve stimulation on electrocortical brain activity in

patients with knee osteoarthritis.

Source: National Center of Neuromodulation for Rehabilitation (\$37,273) – Unfunded

PI: Glaviano NR, **Norte GE**, Ingersoll CD

Role: Principal Investigator Period: July 2017 – July 2018

Description: Examining the effect of patterned electrical neuromuscular stimulation on peripheral, spinal, and

supraspinal modulation.

Source: Mid-Atlantic Athletic Trainers' Association (\$1,250.00)\*

Title: Central and Peripheral Nervous System Adaptations across the Spectrum of ACLR

PI: **Norte GE**, Hart JM Role: Co-Principal Investigator

Period: 2013-2015

Description: District foundation grant to study correlations/ predictions for outcomes after ACLR

Source: Eastern Athletic Trainers' Association (\$3,100.00)\*

Title: Central and Peripheral Nervous System Adaptations across the Spectrum of ACLR

PI: **Norte GE**, Hart JM Role: Co-Principal Investigator

Period: 2013-2015

Description: District foundation grant to study neurophysiologic outcomes in patients with ACLR

Source: Genzyme, Inc. (\$305,000.00)§

Title: Prospective, randomized, double blind evaluation of the efficacy of a single dose of Synvisc-

One® (6.0 cc) for the treatment of patellofemoral chondromalacia

PI: Hart JM, Diduch, DR Role: Research coordinator

Period: 2009-Present

Description: Clinical Trial; investigator initiated FDA IDE application

Source: The Wallace H. Coulter Foundation Translational Research Partnership in Biomedical

Engineering (\$295,000.00)§

Title: Application of an MRI-based muscle-modeling tool for diagnosing muscle impairments

PI: Meyer CH, Blemker SS, Abel MF, Hart JM

Role Research coordinator

Period: 2010-Present

Description: Technology development grant for MRI muscle modeling in patients

Source: Moximed, Inc. (\$117,500.00)§

Title: Prospective, Multi-Center, Pilot Study to Evaluate Symptom Relief in Patients with Medial Knee

Osteoarthritis (OA) Treated with the KineSpring® Knee Implant for Load Reduction

PI: Diduch DR

Role: Research coordinator

Period: 2013-Present

Description: Pre-FDA IDE trial for an implantable device to reduce medial knee joint load in those with

osteoarthritis. This study includes 3D gait analysis and longitudinal outcomes.

Source: Zimmer Orthobiologics, Inc. (\$209,687.50)§

Title: Post-Market, Longitudinal Data Collection Study of DeNovo NT for Articular Cartilage Defects

of the Knee

PI: Diduch DR

Role: Research coordinator

Period: 2011-Present

Description: Sponsor-initiated post-market outcomes study for patients treated with DeNovo NT

Source: Zimmer Orthobiologics, Inc. (\$313,562.50)§

Title: A Stratified, Post-Market Study of DeNovo NT for Treatment of Femoral and Patellar Articular

Cartilage Lesions of the Knee

PI: Diduch DR

Role: Research coordinator

Period: 2011-Present

Description: Sponsor-initiated post-market outcomes study for patients treated with DeNovo NT

Source: Aesculap. (\$12,500 start-up costs + \$33,955.00 [NOVOCART] or \$21,700.00

[MICROFRACTURE] per enrolled patient)§

Title: A Phase 3 Prospective, Randomized, Partially Blinded Multi-Center Study to Measure the Safety

and Efficacy of NOVOCART® 3D, Compared to Microfracture in the Treatment of Articular

Cartilage Defects

PI: Diduch DR

Role: Research coordinator

Period: 2011-Present

Description: Sponsor-initiated outcomes study for patients randomized to Novocart 3D compared to

microfracture for treatment of articular lesions to the femoral condyle or trochlea

#### **HONORS AND AWARDS**

• ACSM Biomechanics Interest Group Student Research Award

May 2015

• NATA Research and Education Foundation Scholarship

June 2014

• Elsie Hughes Cabell Scholarship

April 2014

• Nominated for Dolores Zohrab Liebmann Fellowship

December 2013

• Finalist for Masters Student Poster Presentation Award

June 2010

McCue Society membership

June 2009-Present

# MASTERS STUDENT THESIS COMMITTEE (\* Chair, † committee member, | doctoral student advisor)

1. Scheurer S, Glaviano NR, Ingersoll CD, **Norte GE**. Relationship Between Corticomotor Excitability and Quadriceps Neuromuscular Function in Patients Following ACL Reconstruction. 2016-2018\*

- 2. Verhoff K, Glaviano NR, Murray AM, **Norte GE**. Lower Extremity Biomechanics During a Single Limb Hop Task in Patients Following ACL Reconstruction and Healthy Controls. 2016-2018\*
- 3. Zink C, Glaviano NR, Bouillon L, **Norte GE**. Lower Extremity Muscle Activation Patterns During a Single Limb Hop Task in Patients Following ACL Reconstruction and Healthy Controls. 2016-2018\*
- 4. Haines M, Glaviano NR, Murray AM, **Norte GE**. Influence of Ankle Bracing and Externally Focused Biofeedback on Lower Extremity Landing Biomechanics in Healthy Females. 2016-2018\*
- 5. Frendt T, Donovan L, Armstrong C, McLoughlin T, **Norte GE**. Effects of Dual Tasking on Anticipated and Unanticipated Cutting Biomechanics in Healthy Males. 2015-2017\*
- 6. Lipinski C, Donovan L, Armstrong C, McLoughlin T, **Norte GE**. Surface Electromyography of the Flexor Carpi Ulnaris and Flexor Digitorum Superficialis During Elbow Rehabilitation Phases. 2015-2017\*
- 7. Rowe A, Donovan L, Armstrong C, **Norte GE**. Influence of Ankle Bracing on Lower Extremity Muscle Activation During a Stop-Jump Task. 2015-2017\*
- 8. Henderson N, Donovan L, Armstrong C, **Norte GE**. Influence of Ankle Bracing on Lower Extremity Kinematics During a Stop-Jump Task. 2015-2017\*
- 9. Reynolds T, **Norte GE**, Armstrong C, McLoughlin T, Wambold S. Core Muscle Activation as it Pertains to Unstable Resistance Training. 2015-2017<sup>†</sup>
- 10. Solaas H, **Norte GE**, Saliba SA, Hart JM. Physical Activity Influence the Relationship Between Lower Extremity Function and Fear of Movement After ACL Reconstruction. 2015-2016
- 11. Donner C, **Norte GE**, Resch J, Hart JM. Performance Tracking Over a Single Season in Male Collegiate Soccer Players. 2015-2016
- 12. McMillin M, **Norte GE**, Hertel J, Hart JM. Quadriceps Function in ACL Reconstructed Patients With and Without a History of Knee Osteoarthritis. 2014-2015

- 13. Williamson C, **Norte GE**, Broshek D, Hart JM, Resch J. Return-to-Learn Following Sport Concussion: A Survey of Current Practice of Athletic Trainers. 2014-2015
- 14. Meyer J, **Norte GE**, Hertel J, Hart JM. Neuromuscular Function in Patients with Clinically Diagnosed Chondromalacia Patella. 2013-2014
- 15. Richbourg C, Norte GE, Hart JM, Park J, Hertel J. Strength and Functional Measures in Patients with Posterior Tibial Tendon Dysfunction. 2013-2014
- 16. Wintringham D, **Norte GE**, Hart JM, Park J, Hertel J. Strength and Functional Measures in Patients with Posterior Tibial Tendon Dysfunction. 2012-2013
- 17. Mitha Z, Kuenze CM, Norte GE, Read K, Handsfield G, Blemker SS, Hertel J, Hart JM. Lower Extremity Muscle Volumes in ACL Deficient Patients. 2012-2013

# MEDICAL STUDENT RESEARCH SUPERVISOR

- Luis Goity School of Medicine; University of Virginia, 2018
- Nabil Abazaid School of Medicine; University of Virginia, 2018
- Michael Watson School of Medicine; University of Virginia, 2017
- Sean Higgins School of Medicine; University of Virginia, 2016
- Vincent Gomez School of Medicine; University of Virginia, 2014
- Eric Zachwieja School of Medicine; University of Virginia, 2014

# UNDERGRADUATE STUDENT RESEARCH SUPERVISOR

- Amelia Wellings College of Arts and Sciences; University of Virginia, 2016
- Eva Tuszka School of Engineering and Applied Science; University of Virginia, 2015
- Hanifah Hendricks College of Arts and Sciences; University of Virginia, 2015
- Matthew Hrin College of Arts and Sciences; University of Virginia, 2015

#### PROFESSIONAL SERVICE AND LEADERSHIP

PROFESSIONAL SERVICE AND LEADERSHIP		
<ul><li>University of Toledo</li><li>Committee Member, AT Faculty Search</li></ul>	2017-Present	
University of Virginia		
Curry School of Education Research Conference		
<ul> <li>Chair – Proposals Committee</li> </ul>	2014-2015	
<ul> <li>Co-Chair – Proposals Committee</li> </ul>	2013-2014	
Curry School of Education Council	2013-2015	
<ul> <li>Kinesiology Representative</li> </ul>		
State Service		
Virginia Athletic Trainers' Association Annual Meeting	January 2014	
<ul> <li>Quiz Bowl Emcee/ Question writer</li> </ul>		
<ul> <li>Moderator, VATA Annual Meeting; Short Pump, VA</li> </ul>	January 2014	
Virginia Young Professionals Committee Member	August 2013	
Volunteer, Virginia Athletic Trainers' Association Annual Meeting	January 2013	
NATA District 2 Advanced Education Committee Continuing Education	April 2012	

National Service			
<ul> <li>Moderator, NATA Annual Meeting, Houston, TX</li> </ul>	June 2017		
NATA Foundation Research Faulty Mentor Program	2017-Present		
GLATA Free Communication Abstract Reviewer	2016-Present		
<ul> <li>ATOAC: Resources to Raise Awareness of Osteoarthritis Working Group</li> </ul>	2015-Present		
<ul> <li>Moderator, NATA Annual Meeting, Indianapolis, IN</li> </ul>	June 2014		
<ul> <li>Moderator, NATA Annual Meeting, Las Vegas, NV</li> </ul>	June 2013		
<ul> <li>NATA Annual Meeting Workshop Assistant – Kinesio Tape</li> </ul>	June 2009		
NATA Annual Meeting Career Center Volunteer	June 2007		
Scholarly Service			
Ad hoc Manuscript Reviewer			
American Journal of Sports Medicine	2017-Present		
Clinical Rehabilitation	2017-Present		
<ul> <li>Archives of Physical Medicine and Rehabilitation</li> </ul>	2016-Present		
Journal of Science and Medicine in Sport	2016-Present		
Medical Research Archives	2015-Present		
PLOS ONE	2015-Present		
International Journal of Athletic Therapy and Training	2013-Present		
Journal of Sport Rehabilitation  Add to The interpretation	2011-Present		
Athletic Training and Sports Health Care  Outlement line	2011-Present		
Orthopaedics     Learner Left Add Letter Training	2011-Present		
Journal of Athletic Training     Sports Health, A Multidiscipling Approach	2010-Present		
Sports Health: A Multidisciplinary Approach	2010-Present		
Board of Certification Volunteer			
Evidence-Based Practice Review Panelist	2014-Present		
Home Study Reviewer	2012- 2014		
Community Service			
<ul> <li>High School Boarding Program Resident</li> </ul>	April 2015-Present		
<ul> <li>United Way Day of Caring</li> </ul>	September 2014		
CPR and First Aid Instruction: UVA	Fall 2012-Present		
<ul> <li>CPR and First Aid Instruction: SUNY New Paltz</li> </ul>	Fall 2012-2013		
<ul> <li>CPR and First Aid Instruction: Steadman Clinic</li> </ul>	Fall 2010-2012		
Vail Valley Highway Clean Up	June 2010		
Boy Scout educational casting session – Steadman Clinic	March 2010		
Dew Tour Winter Game Medical Coverage	January 2010		
Vail Recreation District Medical Coverage	August 2009-May 2010		
PROFESSIONAL ORGANIZATIONS/ CERTIFICATIONS			

•	National Athletic Trainers' Association	2006-Present
	o Member #: 25704	2000 Durana
	o Certification #: 060802072	2008-Present
•	National Strength and Conditioning Association	2009-Present
	o Member #: 09-03-27-027	2009-Present
	o Certification #: 200938842	2009-Present
•	National Board for Certification of Orthopaedic Technologists	2010-Present
	o Certification #: 10-0616	
•	Red Cross CPR/AED for the Professional Rescuer Instructor	2008-Present

<ul> <li>Instructor #: 6782361 (updated 8/4/14)</li> </ul>	
Nationally Registered Emergency Medical Technician - Basic	2008-2010
o Registry #: B1883793	
National Provider Identifier	2009-Present
o Provider #: 1023259678	
• Eastern Athletic Trainers' Association	2010-Present
Virginia Athletic Trainers' Association	2012-Present
Virginia State Licensure	2012-Present
o License #: 0126001331	
• Sports Medicine Research (SMR): In the Lab & In the Field	2014-Present
American College of Sports Medicine	2015-Present
o Member #: 755641	
• Athletic Trainers' Osteoarthritis Consortium	2015-Present

GEN: Revised 1-July-2017