

Tiffany Nicole Hilton (Maiden Name: Frimel)  
Ithaca College, Department of Physical Therapy  
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Education:                    **University of Florida**  
Gainesville, Florida  
1999-2004  
Rehabilitation Science  
Major Studies in Department of Physical Therapy  
Doctor of Philosophy, December 2004

**University of St. Augustine for Health Sciences**  
St. Augustine, Florida  
1997-1999  
Physical Therapy  
Master of Physical Therapy, January 1999

**Wake Forest University**  
Winston-Salem, North Carolina  
1992-1996  
Major Studies in Health and Exercise Science  
Minor Studies in Chemistry  
Bachelor of Science, *Cum Laude*, May 1996

Licensure Information/Registration Number: Physical Therapy Licensure

Florida: PT18302  
Missouri: 2004022174  
New York: 029399

Employment and Positions Held:

**Assistant Professor**, Ithaca College, Department of Physical Therapy, Rochester, New York November 2007-present

**Post-doctoral Research Fellow**, Washington University School of Medicine, Program in Physical Therapy Saint Louis, Missouri, July 2005-October 2007.

**Post-doctoral Research Fellow**, University of Florida, College of Health Related Professions, Department of Physical Therapy, Gainesville, Florida, January 2005-June 2005.

**Staff Physical Therapist (part-time)**, Sports & Orthopedic Rehabilitation Services, Inc, Gainesville, Florida, 2004-2005.

**Pre-Doctoral Associated Health Rehabilitation Research Fellow**, Department of Veterans Affairs, BRRC/Malcom Randall VAMC, Gainesville, Florida, 2003-2004.

**Graduate Research Assistant**, University of Florida, College of Health Related Professions, Department of Physical Therapy, Gainesville, Florida, 2001-2003.

**Contract Physical Therapist**, Rehab Solutions, Gainesville, Florida, 2001-2003.

**Graduate Teaching Assistant**, University of Florida, College of Health Related Professions, Department of Physical Therapy, Gainesville, Florida, 1999-2001.

**Staff Physical Therapist**, Broward Children's Center, Pompano Beach, Florida, 1999.

Peer Reviewed Publications:

**Hilton TN**, Sinacore DR, Shah K, Host H, Klein S, Villareal DT. Sarcopenia in frail elderly obese participants: role of excess skeletal muscle lipid accumulation. (In progress)

Host HH, **Hilton TN**, Sinacore DR, Bohnert KL, Binder DR. Amelioration of sarcopenia post hip fracture. (In review: Physical Therapy)

Shah K, Stufflebam A, **Hilton TN**, Sinacore DR, Klein S, Villareal DT. Diet and Exercise Interventions Reduce Intrahepatic Fat Content and Improve Insulin Sensitivity in Obese Older Adults. (Accepted for Publication: Obesity)

**Hilton TN**, Tuttle LJ, Bohnert KL, Mueller MJ, Sinacore DR. Excessive adipose tissue infiltration in skeletal muscle in individuals with obesity, diabetes mellitus and peripheral neuropathy: Impact on performance and function. *Phys Ther*. 2008 Nov; 88(11):1336-44.

**Frimel TN**, Sinacore DR, Villareal DT. Attenuation of sarcopenia in frail elderly obese participants undergoing weight loss. *Med Sci Sports Exerc*. 2008 Jul;40(7):1213-9.

Smith GI, Atherton P, Villareal DT, **Frimel TN**, Rankin D, Rennie MJ, Mittendorfer B. Differences in muscle protein synthesis and anabolic signaling in the postabsorptive state and in response to food in 65-80 year old men and women. *PLoS ONE*. 2008 Mar 26;3(3):e1875.

**Frimel TN**, Deivanayagam S, Bashir A, O'Connor R, Klein S. Assessment of Intrahepatic Triglyceride Content Using Magnetic Resonance Spectroscopy. *The Journal of the Cardio Metabolic Syndrome*, spring 2007. 2(2): p. 136-8.

Pathare N, Vandenborne K, Liu M, Stevens JE, Li Y, **Frimel TN**, Walter GA. Alterations in inorganic phosphate in mouse hindlimb muscles during limb disuse. *NMR Biomed*, 2008. 21(2): p. 101-10.

**Frimel TN**, Kapadia F, Gaidosh GS, Li Y, Walter GA, Vandenborne K. A model of muscle atrophy using cast immobilization in mice. *Muscle Nerve*, 2005. 32(5): p. 672-4.

**Frimel TN**, Walter GA, Gibbs JD, Gaidosh GS, Vandenborne K. Noninvasive monitoring of muscle damage during reloading following limb disuse. *Muscle Nerve*, 2005. 32(5): p. 605-12.

Stevens JE, Walter GA, Okereke E, Scarborough MT, Esterhai JL, George SZ, Kelley MJ, Tillman SM, Gibbs JD, Elliott MA, **Frimel TN**, Gibbs CP, Vandenborne K. Muscle adaptations with immobilization and rehabilitation after ankle fracture. *Med Sci Sports* 2004;36(10):1695-1701.

Peer Reviewed Scientific and Professional Presentations:

**Hilton TN**, Sinacore DR, Shah K, Klein S, Villareal DT. Exercise Added to Diet Increases Intramyocellular Lipid Content and Muscle Power and Endurance in Frail Obese Elderly. To be presented at APTA's Combined Sections Meeting, Las Vegas, Nevada, February 2009.

Shah K, **Hilton TN**, Decker MT, Sinacore DR, Villareal DT. Muscle Power and Subcutaneous Fat Volume are Important Predictors of Frailty in Obese Older Adults. Presented at Gerontological Society of America's Annual Scientific Meeting, National Harbor, Maryland, November 2008.

**Frimel TN**, Sinacore DR, Villareal DT. Sarcopenia in Frail Elderly Obese Participants: Role of Excess Skeletal Muscle Lipid Accumulation. Presented at APTA's Combined Sections Meeting, Nashville, Tennessee, February 2008.

**Frimel TN**, Villareal DT, Host HH, Binder EF, Sinacore DR. Sarcopenia: a common pathogen leading to physical frailty in aging and chronic disease. Presented at APTA's Combined Sections Meeting, Boston, Massachusetts, February 2007.

**Frimel TN**, Sinacore DR, Villareal DT. Predictors of physical frailty in obese older adults. Presented at the Gerontological Society of America's Annual Scientific Meeting, Dallas, Texas, November 2006.

**Frimel TN**, Frye E, Sinacore DR, Villareal DT. Attenuation of sarcopenia in frail elderly obese subjects undergoing weight loss. Presented at APTA's Combined Sections Meeting, San Diego, California, February 2006.

**Frimel TN**, Kapadia F, Gregory C, Gaidosh GS, Walter GA, Vandeborne K. A translational model of disuse atrophy in the mouse hind-limb using cast-immobilization. Presented at American College of Sports Medicine Annual Meeting, Nashville, Tennessee, June 2005.

**Frimel TN**, Gaidosh G, Walter GA, Vandeborne K. Noninvasive magnetic resonance imaging to determine mechanisms responsible for soleus muscle susceptibility to damage. Presented at APTA's Combined Sections Meeting, New Orleans, Louisiana, February 2005.

**Frimel TN**, Cahill KS, Gaidosh GS, Torres RT, Huard J, Byrne BJ, Vandeborne K, Walter GA. Noninvasive monitoring of stem cell delivery and muscle regeneration. Presented at International Society for Magnetic Resonance in Medicine Meeting, Kyoto, Japan, May 2004.

**Frimel TN**, Cahill KS, Gaidosh G, Byrne BJ, Vandeborne K, Walter GA. Noninvasive magnetic resonance imaging of therapeutic stem cell transplantation for muscle regeneration. Presented at APTA's Combined Sections Meeting, Nashville, Tennessee, February 2004.

**Frimel TN**, Gibbs JD, Gaidosh G, Walter GA, Vandeborne K. Noninvasive monitoring of muscle damage. Presented at New Directions in Biology and Disease of Skeletal Muscle, San Diego, California, January 2004.

Cahill KS, **Frimel TN**, Germain S, Gaidosh G, Huard J, Byrne BJ, Walter GA. Noninvasive imaging of stem cell kinetics during skeletal and cardiomyopathy. Presented at 33<sup>rd</sup> Southeastern Magnetic Resonance Conference, Tallahassee, Florida, October 2003.

**Frimel TN**, Gibbs JD, Bloy D, Gaidosh G, Silver XS, Walter GA, Vandeborne K. Muscle damage and regeneration following cast-immobilization using T<sub>2</sub> magnetic resonance imaging. Presented at International Society for Magnetic Resonance in Medicine Meeting, Toronto, Canada, July 2003.

**Frimel TN**, Gibbs JD, Walter GA, Silver XS, Vandeborne K. Adaptations in skeletal muscle during cast immobilization and reambulation in an animal model. Platform presentation at the Marilyn Gossman Student Seminar, APTA's Combined Sections Meeting, Tampa, Florida, February 2003.

**Frimel TN**, Gibbs JD, Walter GA, Okereke E, Esterhai JL, Kelley ME, Stevens JE, Vandeborne K. Quantitative changes in muscle cross sectional area after ankle fracture during immobilization and rehabilitation using magnetic resonance imaging. Presented at APTA's Combined Sections Meeting, Tampa, Florida, February 2003.

Light KE, **Frimel TN**, Bartness WW, Villamil JM. Lower extremity strength in individuals after total hip arthroplasty. *Journal of Geriatric Physical Therapy* 24(3): 23-24, 2001. Presented at APTA's Combined Sections Meeting, Boston, Massachusetts, February 2002.

#### Research Activity:

##### **New Investigator Fellowship Training Initiative (NIFTI) Post-Doctoral**

**Fellowship**, Foundation for Physical Therapy, American Physical Therapy Association, 2006-2007.

**Ruth L. Kirchstein T32 National Research Service Award (NRSA) Post-Doctoral Fellowship**, 5T32HD007434-14, National Institute of Child Health and Human Development/NIH, 2005-2006.

**Promotion of Doctoral Studies (PODS) Level II Scholarship**, Foundation for Physical Therapy, American Physical Therapy Association, 2003-2004.

**Viva J. Erickson Scholarship**, Foundation for Physical Therapy, American Physical Therapy Association, 2003-2004. To fund postprofessional doctoral studies to prepare for academic leadership of physical therapy education programs.

**Pre-Doctoral Associated Health Rehabilitation Research Fellowship**, Department of Veterans Affairs, 2003-2004

**Promotion of Doctoral Studies (PODS) Level I Scholarship**, Foundation for Physical Therapy, American Physical Therapy Association, 2002-2003.

Membership in Scientific/Professional Honorary Societies:

American Physical Therapy Association (APTA), 1998-present  
-Research, Geriatrics, and Cardiopulmonary Sections

Positions Held in Scientific/Professional Honorary Societies:

*Physical Therapy* reviewer, July 2005-present  
*Journal of Geriatric Physical Therapy* reviewer, January 2008-present

Chair of Gainesville Sub-District of the Florida Physical Therapy Association June 2000-January 2005  
Hooked on Evidence Reviewer, section on research, APTA, 2003

Services to the University/College/School on  
Committees/Councils/Commissions:

Curriculum Committee, Department of Physical Therapy, November 2007-present

Volunteer for Career Day, Rochester School District, March 19, 2008.

Honors and Awards:

**Invited Speaker, Washington University, Alumni Day**, September 2007

**Invited Summer Institute Participant**, National Institute on Aging, Summer Institute on Aging Research, July 2006.

**Selected Speaker, Washington University School of Medicine Postdoc Scientific Symposium**, February 2006.

**National Center for Medical Rehabilitation Research Trainee**, National Institutes of Health Training Workshop, December 2005.

**International Society for Magnetic Resonance in Medicine**, student stipend award, for presentation at International Society for Magnetic Resonance in Medicine Meeting, Kyoto, Japan, May 2004.

**College of Health Professions Research Day Award**, to travel to a professional/scientific conference to present the award winning poster from the 2004 College of Health Professions' Research Day, April 2004.

**Graduate Student Council Travel Grant**, University of Florida, for poster presentation at International Society for Magnetic Resonance in Medicine Meeting, Toronto, Canada, July 2003.

**College of Health Professions Research Day Award**, to travel to a professional/scientific conference to present the award winning poster from the 2003 College of Health Professions' Research Day, April 2003.

**Travel Award**, Office of Research and Graduate Programs, University of Florida, for platform and poster presentations at APTA's Combined Sections Meeting, Tampa, Florida, February 2003.

**Rehabilitation Science Travel Award**, University of Florida, for platform and poster presentations at APTA's Combined Sections Meeting, Tampa, Florida, February 2003.

**Rehabilitation Science Travel Award**, University of Florida, for poster presentation at APTA's Combined Sections Meeting, Boston, Massachusetts, February 2002.

**Dean's Scholar Finalist**, College of Health Professions, University of Florida, 2001-2002.

Continuing Education Course (last 5 years):

Rehabilitation of Common Medical Pathologies, November 2007

Basic EKG Interpretation, January 2008

Gerinotes Continuing Education Module: Cardiovascular and Pulmonary, November 2008

PTJ Manuscript Review: April-June 2008, July-September 2008

Current Teaching Responsibilities in the Physical Therapy Program (in sequence, by quarter or semester):

Cardiac Testing and Management, Block III

Research II, Block III-IV

Pulmonary Testing and Management, Block IV

Anatomy, Summer Semester

