

**CURRICULUM VITAE**  
**University of Pittsburgh**  
**School of Health and Rehabilitation Sciences**

**BIOGRAPHICAL**

**Name:** Alexandra B. Gil, PT, PhD

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**EDUCATION and TRAINING**

*List entries in each section chronologically*

**UNDERGRADUATE:**

1994-1997	Sao Paulo State University, Presidente Prudente, SP, Brazil	B.S., 1997	Physical Therapy
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**GRADUATE:**

1998-1998	Sao Paulo State University, Presidente Prudente, SP, Brazil	Specialist, 1998	Musculoskeletal System in Sports Medicine
2002-2003	University of Pittsburgh Pittsburgh, Pennsylvania	MS, 2003	Musculoskeletal Physical Therapy
2004-2010	University of Pittsburgh Pittsburgh, Pennsylvania	PhD, 2010	Rehabilitation Science

## APPOINTMENTS and POSITIONS

### ACADEMIC:

2003 – 2004	Department of Physical Therapy University of Pittsburgh, Pittsburgh, PA	Graduate Student Assistant
2004 – 2006	Department of Physical Therapy University of Pittsburgh, Pittsburgh, PA	Graduate Student Researcher
2006 – 2011	Department of Physical Therapy University of Pittsburgh, Pittsburgh, PA	Research IV Specialist
2009 – present	Department of Physical Therapy University of Pittsburgh, Pittsburgh, PA	Administrative-Director of PT-CTRC
2011 – present	Department of Physical Therapy University of Pittsburgh, Pittsburgh, PA	Research Assistant Professor

### NON-ACADEMIC:

1994 – 1996	Yazigi English as a Second Language School Presidente Prudente, SP, Brazil	Teacher of English as a Second Language
May 1998 – Dec. 1998	English at Work Presidente Prudente, SP, Brazil	Teacher of English as a Second Language
May 1998 - Dec. 1998	Brigaderio Physical Therapy Clinic Sao Paulo, SP, Brazil	Staff Physical Therapist
Jan. 1999 - Sept. 1999	Sprint Runners Presidente Prudente, SP, Brazil	Brazilian Olympic Track and Field Team Physical Therapist
1999-2001	Middle Distance Runners and Long Distance Jumpers Rio de Janero, RJ, Brazil	Brazilian Olympic Track and Field Team Physical Therapist
2002-2003	Department of Physical Therapy University of Pittsburgh, Pittsburgh, PA	Student Worker

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## CERTIFICATION and LICENSURE

### PROFESSIONAL LICENSURE:

Conselho Regional de Fisioterapia e Terapia Ocupacional da  
5ª região – Brazil

1997-2014

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## MEMBERSHIPS in PROFESSIONAL and SCIENTIFIC SOCIETIES

American Physical Therapy Association (APTA)

2007-present

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## HONORS

Institute for Rehabilitation and Research Day 2007 (IRRD2007) Best  
Rehabilitation Research by a Pre-Doctoral in School of Health and  
Rehabilitation Sciences category with Award, University of Pittsburgh

2007

Institute for Rehabilitation and Research Day 2009 (IRRD2009) Best  
Rehabilitation Research by a Pre-Doctoral in School of Health and  
Rehabilitation Sciences category with Award, University of Pittsburgh

2009

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## PUBLICATIONS

### Refereed Articles:

1. Fitzgerald GK, Fritz JM, Childs JD, Brennan GP, Talisa V, **Gil AB**, Neilson BD, Abbott JH. Exercise, manual therapy, and use of booster sessions in physical therapy for knee osteoarthritis: a multi-center, factorial randomized clinical trial. *Osteoarthritis and Cartilage*. 2016 Aug;24(8):1340-1349.
2. Piva SR, Moore CG, Schneider M, **Gil AB**, Almeida GJ, Irrgang JJ. A randomized trial to compare exercise treatment methods for patients after total knee replacement: protocol paper. *BMC Musculoskelet Disord*. 2015 Oct; 16:303. PubMed PMID: 26474988.
3. Farrokhi S, O'Connell M, **Gil AB**, Sparto PJ, Fitzgerald GK. Altered gait characteristics in individuals with knee osteoarthritis and self-reported knee instability. *J Orthop Sports Phys Ther*. 2015 May; 45 (5):351-9. PubMed PMID: 25808531.
4. Farrokhi S, Piva SR, **Gil AB**, Oddis CV, Brooks MM, Fitzgerald GK. Association of severity of coexisting patellofemoral disease with increased impairments and functional

limitations in patients with knee osteoarthritis. *Arthritis Care Res(Hoboken)*. 2013 April; 65(4):544-51. PubMed PMID: 23045243.

5. Farrokhi S, Tashman S, **Gil AB**, Klatt BA, Fitzgerald GK. Are kinematics of the knee joint altered during the loading response phase of gait in individuals with concurrent knee osteoarthritis and complaints of joint instability? A dynamic stereo X-ray study. *Clin Biomech (Bristol, Avon)*. 2012 May;27(4):384-9. Epub 2011 Nov 8. PubMed PMID: 22071429.
6. Woollard JD, **Gil AB**, Sparto PJ, Kwok CK, Piva SR, Farrokhi S, Powers CM, Fitzgerald GK. Change in Knee Cartilage Volume in Individuals Completing a Therapeutic Exercise Program for Knee Osteoarthritis. *J Orthop Sports Phys Ther* 2011;41(10):708-722, Epub 2011 Sep 4. PubMed PMID: 21891881.
7. Fitzgerald GK, Piva SR, **Gil AB**, Wisniewski SR, Oddis CV, Irrgang JJ. Agility and Perturbation training techniques in exercise therapy for reducing pain and improving function in people with knee osteoarthritis: a randomized clinical trial. *Phys Ther*. 2011. Apr; 91 (4):452-69. Epub 2011 Feb 17. PubMed PMID: 21330451.
8. Piva SR, Teixeira PE, Almeida GJ, **Gil AB**, Digioia AM 3rd, Levison TJ, Fitzgerald GK. Contribution of hip abductor strength to physical function in patients with total knee arthroplasty. *Phys Ther*. 2011. Feb;91(2):225-33. Epub 2011 Jan 6. PubMed PMID: 21212373.
9. Almeida GJ, Schroeder CA, **Gil AB**, Fitzgerald GK, Piva SR. Interrater Reliability and Validity of the Stair Ascend/Descend Test in Subjects With Total Knee Arthroplasty. *Arch Phys Med Rehabil*. 2010 Jun;91(6):932-938. PubMed PMID: 20510986.
10. Piva SR, **Gil AB**, Almeida GJ, Digioia AM 3rd, Levison TJ, Fitzgerald GK. A balance exercise program appears to improve function for patients with total knee arthroplasty: a randomized clinical trial. *Phys Ther*. 2010 Jun;90(6):880-94. Epub 2010 Apr 8. PubMed PMID: 20378678.
11. Scopaz KA, Piva SR, **Gil AB**, Woollard JD, Oddis CV, Fitzgerald GK. Effect of baseline quadriceps activation on changes in quadriceps strength after exercise therapy in subjects with knee osteoarthritis. *Arthritis Rheum*. 2009 Jul15;61(7):951-7. PubMed PMID: 19565548.
12. Piva SR, **Gil AB**, Moore CG, Fitzgerald GK. Responsiveness of the activities of daily living scale of the knee outcome survey and numeric pain rating scale in patients with patellofemoral pain. *J Rehabil Med*. 2009 Feb;41(3):129-35. PubMed PMID: 19229444.

## Monograph

Doctoral Dissertation: "The Association Between Lower Extremity Movement Patterns and Physical Function in People with Knee Osteoarthritis." etd-11242010-153645, University of Pittsburgh, 2010.

**Published Abstracts** (*Asterisk\* indicates my mentees as first authors*):

1. **Gil AB**, Sparto PJ, Chambers AJ, Cham R, Fitzgerald GK. Relationship between physical function and stiffened pattern of movement during gait in patients with knee osteoarthritis. *Proceedings of the XIX Conference of International Society for Posture & Gait Research 2009*; O.96; page 112.
2. **Gil AB**, Sparto PJ, Piva SR, Fitzgerald GK. (136) Stiffened Pattern Of Movement Is Associated With Worse Physical Function In People With Knee Osteoarthritis. *Osteoarthritis and Cartilage - September 2009* (Vol. 17Supplement 1, Pages S81-S82).
3. **Gil AB**, Sparto PJ, Piva SR, Fitzgerald GK. The Influence of Hip Muscle Strength and Hip Frontal Plane Moment On the Knee Adduction Moment in People with Knee Osteoarthritis [abstract]. *Arthritis Rheum 2009*;60 Suppl 10 :1934.
4. Piva SR, Almeida GJM, **Gil AB**, Teixeira PEP, Fitzgerald GK. Effectiveness and Feasibility of a Balance Training Program Post Total Knee Arthroplasty -Pilot Randomized Trial. *J Orthop Sports Phys Ther 2009*; 39 (1): A29-30.
5. Almeida GJM, **Gil AB**, Fitzgerald GK, Piva SR. Asymmetries in Physical Impairments and Spatial-Temporal Parameters of Gait in Total Knee Arthroplasty. *J Orthop Sports Phys Ther 2009*; 39 (1): A48.
6. Teixeira PEP, **Gil AB**, Almeida GJM, Piva SR. Reliability and Validity of Hip Muscle Strength Measures after Total Knee Arthroplasty. *J Orthop Sports Phys Ther 2009*; 39 (1): A28.
7. Piva SR, **Gil AB**, Almeida GJM, Fitzgerald GK. Improvements in Muscle Impairments are Associated with Improvement in Physical Function in Patients with Total Knee Arthroplasty. *Arthritis and Rheumatism 2008*; 58 (9): S596 - 1151.
8. Teixeira PEP, Fitzgerald GK, **Gil AB**, Almeida GJM, Piva SR. Association Between Hip Muscles Strength and Physical Function in Individuals with Total Knee Arthroplasty. *Arthritis and Rheumatism 2008*; 58 (9): S892 - 1977.

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**PROFESSIONAL ACTIVITIES**

**TEACHING:**

**Undergraduate**

Spring and Summer 1999	Supervisor of Clinical Internship, Sports Medicine Internship, Department of Physical Therapy, Sao Paulo State University (UNESP), Brazil
Fall 2003	REHSCI 1200 – Human Anatomy and Lab. Teaching Assistant. Rehabilitation Science Program, School of Health and Rehabilitation Sciences, University of Pittsburgh

Fall 2004 REHSCI 1215 – Exercise Physiology. Teaching Assistant. Rehabilitation Science Program, School of Health and Rehabilitation Sciences, University of Pittsburgh

Spring 2005 & Spring 2006 REHSCI 1220 – Kinesiology and Biomechanics. Teaching Assistant. Rehabilitation Science Program, School of Health and Rehabilitation Sciences, University of Pittsburgh

### **Graduate**

Fall 1998 Isokinetic Evaluation and Treatment. Lecturer. Musculoskeletal System in Sports Medicine Specialization program. Sao Paulo Federal University (UNIFESP), Brazil.

2002 – present PT 2030 - Advanced Musculoskeletal Anatomy. Laboratory instructor for Spring of 2002, and PBL sessions facilitator in 2011 and 2016.

2005 – 2008 PT 2362 – Examination and Treatment of Lower Extremity. Laboratory Instructor. Master in Physical Therapy program, Department of Physical Therapy, University of Pittsburgh.

2005 – present REHSCI 1285 - Introduction to Evidence-Based Rehabilitation. Lecturer of Diagnosis and Journal Club facilitator.

2009 – present PT 2362 – Examination and Treatment of Lower Extremity. Course Coordinator. Master in Physical Therapy program, Department of Physical Therapy, University of Pittsburgh.

2011 – present HRS 2907 - Clinical Investigations. Instructor. Master's of Science – Musculoskeletal track in the Department of Physical Therapy, School of Health and Rehabilitation Sciences, University of Pittsburgh.

2015 – present EBP 2072 & EBP 2075 - Evidence-Based Practice I and IV. Lecturer for Systematic Review and Journal Club facilitator

2016 – present EBP 2073 - Evidence-Based Practice II. Course coordinator; primary responsibility for defining content, lecturing, and evaluating students' work.

### **Curriculum Development**

2015 – present Modifications of DPT program Evidence Based Practice series (EBP I – VII)

## RESEARCH

### ***Current Grant Support***

Patient-Centered Outcomes Research Institute (PCORI) (PI: Piva SR)

Term: 2014-2017

10% effort

Title: A Comparison of Treatment Methods for Patients Following Total Knee Replacement. This is a 3-year pragmatic comparative effectiveness trial that compares functional outcomes of outpatient rehabilitation, community-based exercise and usual care practice in patients after total knee replacement.

Role: Co-Investigator

National Institute of Aging (NIA)

(PI: Brach JS)

Term: 2015-2020

10% effort

Title: Task Specific Timing and Coordination Exercise to Improve Mobility in Older Adults. This is a 5-year study with the purpose of evaluating the impact of adding timing and coordination training to standard strength and endurance training on mobility in older adults.

Role: Co-Investigator

### ***Prior Grant Support (chronologic order)***

National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS) (Fitzgerald, PI)

Term: 2004-2009

100% effort

Title: Knee Stability Training in Individuals with Knee Osteoarthritis.

The major goals of this study are to: 1) Compare the effects of training between a standard exercise group and a group that receives standard exercise plus knee stability training in reducing pain and improving physical function. 2) Compare the effects of training between groups on lower extremity biomechanics during walking and when stepping down from an 6" step.

Role: Trial Coordinator

Agency for Health Care Research and Quality (AHRQ) (Fitzgerald, PI)

Term: 2010-2014

30% effort

Title: Enhancing the effectiveness of physical therapy for people with knee osteoarthritis.

The overall aim of the project is to examine the clinical and cost-effectiveness of utilizing booster sessions in the delivery of exercise therapy, and supplementing exercise therapy with manual therapy techniques in people with knee OA.

Role: Multi-Center Project Coordinator

National Institute of Neurological Disorders and Stroke (NINDS) (Schenkman, PI)

Term: 2011-2015

10% effort

Title: Exploratory study of different doses of endurance exercise in people with Parkinson's disease.

Long-range goal of this study is to determine whether endurance exercise should be first-line therapy for patients with de novo PD.

Role: Multi-Center Project Coordinator

***Other Scientific Presentations Related to Research***

- 2007 Best Rehabilitation Research by a Pre-Doctoral in School of Health and Rehabilitation Sciences category with Award for a research study titled "Association Between Lower Limb Stiffness During Gait and Physical Function in Patients with Knee Osteoarthritis". Institute for Rehabilitation and Research Day 2007, University of Pittsburgh.
- June 2009 **Gil AB**, Sparto PJ, Chambers AJ, Cham R, Fitzgerald GK. Relationship between physical function and stiffened pattern of movement during gait in patients with knee osteoarthritis. XIX Conference of International Society for Posture & Gait Research. Bologna, Italy.
- October 2009 **Gil, AB**, Sparto, PJ, Piva, Sara R., Fitzgerald, G. Kelley. The Influence of Hip Muscle Strength and Hip Frontal Plane Moment On the Knee Adduction Moment in People with Knee Osteoarthritis. 2009 American College of Rheumatology/ Association of Rheumatology Health Professionals Annual Meeting. Philadelphia, PA.
- 2009 Best Rehabilitation Research by a Pre-Doctoral in School of Health and Rehabilitation Sciences category with Award for a research study titled "Relationship Between Physical Function and Stiffness Pattern of Movement during Gait in People with Knee Osteoarthritis." Institute for Rehabilitation and Research Day 2009, University of Pittsburgh.

**LIST OF CURRENT RESEARCH INTERESTS:**

My clinical research interests are to develop and implement methods and materials that ensure data integrity and rigorous implementation of clinical trials in the area of rehabilitation sciences. Specifically, my goals are to facilitate the development of: 1) paperless data (web-based) entry systems that optimizes every day research operations and minimizes data entry error during study implementation; 2) electronic documentation that promotes transparency of study reports to the funding agencies and data safety and monitoring boards.

Additional research interest includes testing the effectiveness of rehabilitation interventions to improve function in patients with arthritis. I have contributed to improve the rehabilitative care in those with osteoarthritis pre and post total knee arthroplasty and to investigate the relationship between biomechanical alterations during gait, knee instability and functional limitations in individuals with knee osteoarthritis.



## **SERVICE**

### **COMMITTEES**

#### **University and School**

2013 – 2014	Secretary of the SHRS Executive Committee
2014 – present	Member of the SHRS Academic Integrity Committee
2015	Chair Elect of the SHRS Executive Committee
2015	Reviewer for Pitt's Small Grant Application Program (CRDF)
2016	Chair of the SHRS Executive Committee
2012 – present	MOI PhD Preliminary Exam Grading at SHRS

### **PROFESSIONAL SERVICES**

#### **Manuscript Reviewer**

2005 – 2007	Arthritis Care and Research
2011 – present	Archives of Physical Medicine and Rehabilitation
2011 – present	Journal of Orthopaedic and Sports Physical Therapy
2015 – present	Clinical Biomechanics