

CURRICULUM VITAE
Clarisa Martinez, PT, DPT, MS

Contact

Address: Division of Biokinesiology and Physical Therapy
University of Southern California
1540 Alcazar Street CHP, 155
Los Angeles, CA 90089-9006

Email: clarisa@pt.usc.edu

Foreign Lang: Spanish (proficient)

Education

2016 **University of Southern California**
Master's of Science, Clinical, Biomedical and Translational Investigations

2009 **University of Southern California**
Doctor of Physical Therapy

2005 **The University of Texas at El Paso**
Major: Pre-Physical Therapy

2002 **The University of Texas at Austin**
Bachelor of Arts, English

Post-Graduate Training

09/16 – 09/17 **Postdoctoral Scholar**
University of California, Los Angeles, Department of Neurology
710 Westwood Plaza, Los Angeles, CA, 90095-1769
Advisor: Bruce Dobkin, MD
Topic: Clinical research with wearable sensors, telerehabilitation, stroke rehabilitation

08/14 – 07/16 **Postdoctoral Fellow (T32), Training in Rehabilitation Efficacy and Effectiveness Trials**
Funding: NIH, National Center for Medical Rehabilitation Research (T32 HD06457)
University of Southern California, Division of Biokinesiology and Physical Therapy
1540 Alcazar Street, CHP 155, Los Angeles, CA 90089-9006
Advisors: Nicolas Schweighofer, PhD, Carolee Winstein, PT, PhD, FAPTA, Beth Fisher, PT, PhD, FAPTA
Topic: Unmasking movement capability in individuals with post-stroke motor impairment

Licensure

Physical Therapy Board of California
License No: 35803

Academic/Teaching Experience

07/22 - **University of Southern California, Division of Biokinesiology and Physical Therapy**
1540 Alcazar Street, CHP 155, Los Angeles, CA 90089-9006
Associate Professor of Clinical Physical Therapy
Director, Evidence Based Practice Curriculum (PT561B, PT561C)

08/21 - 7/22 **University of Southern California, Division of Biokinesiology and Physical Therapy**
1540 Alcazar Street, CHP 155, Los Angeles, CA 90089-9006
Assistant Professor of Clinical Physical Therapy
Director, Evidence Based Practice Curriculum (PT561B, PT561C)

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- 08/18 - 8/21 **University of Southern California, Division of Biokinesiology and Physical Therapy**
1540 Alcazar Street, CHP 155, Los Angeles, CA 90089-9006
Assistant Professor of Clinical Physical Therapy
Co-Director, Evidence Based Practice Curriculum (PT561B, PT561C)
- 09/17 - 7/18 **University of Southern California, Division of Biokinesiology and Physical Therapy**
1540 Alcazar Street, CHP 155, Los Angeles, CA 90089-9006
Adjunct Assistant Professor
Co-Director, Evidence Based Practice Curriculum (PT561B, PT561C)
- 05/17 - 08/17 **Chapman University, Crean College of Health and Behavioral Sciences; Physical Therapy**
9401 Jeronimo Rd, Irvine, CA 92618
Lecturer
Motor Control/Motor Learning Lab
- 08/13 – 08/15 **University of Southern California, Division of Biokinesiology and Physical Therapy**
1540 Alcazar Street, CHP 155, Los Angeles, CA 90089-9006
Instructor, Annual Summer Course
TMS Certification Course, Continuing Education
- 04/13 – 04/16 **University of Southern California, Division of Biokinesiology and Physical Therapy**
1540 Alcazar Street, CHP 155, Los Angeles, CA 90089-9006
Annual guest lecturer, “Clinical considerations for the upper extremity after stroke”
PT 581L Clinical Management of the Patient with Neurological Dysfunction
- 01/11 – 05/12 **University of Southern California**
1540 Alcazar Street, CHP 155, Los Angeles, CA 90089-9006
Instructor of Clinical Physical Therapy
PT 581L Clinical Management of the Patient with Neurological Dysfunction

Research/Clinical Experience

- 01/18 - **Study Statistician, Multi-Center Case Series Implementation of “Vestibular Rehabilitation for Peripheral Vestibular Hypofunction: An Evidence-Based Clinical Practice Guideline”**
Principal Investigator: Julie Tilson
Funding: American Academy of Neurological Physical Therapy
University of Southern California, Division of Biokinesiology and Physical Therapy
- 01/19 – 10/19 **Study Therapist, Transcranial Direct Current Stimulation for Post-Stroke Motor Recovery – A Phase II Study (TRANSPORT 2)**
Principal Investigator: Wayne Feng, Gottfried Schlaug
Co PI: Beth Fisher
Funding: National Institute of Neurological Disorders and Stroke (NINDS)
- 10/16 – 8/18 **Sub-Investigator, Study of Modified Stem Cells (SB623) in Patients with Chronic Motor Deficit from Ischemic Stroke (ACTIssIMA)**
Sponsor: SanBio, Inc, *Collaborator:* Sunovion, *Principal Investigator:* Gary Steinberg, MD, PhD
Ronald Reagan UCLA Medical Center
757 Westwood Plaza, Los Angeles, CA 90095
- 09/17 – 7/18 **Staff Research Associate**
University of California Los Angeles, Geffen School of Medicine, Department of Neurology
710 Westwood Plaza, Los Angeles, CA, 90095-1769
Director: Dr. Bruce Dobkin, MD, FRCP
Projects: Remote mobility and practice tracking for post-stroke hemiparesis, self-management training to enhance post-stroke task practice, bimanual robotic exoskeleton for patients with moderate to severe stroke.

- 08/14 - 12/15 **Research Assistant (Part-time), Dose Optimization for Stroke Evaluation**
Principal Investigators: Nicolas Schweighofer, PhD, Carolee Winstein, PT, PhD, FAPTA
Funding: NIH, Eunice Kennedy Shriver Natl Inst of Child Health and Human Development (HD065438)
University of Southern California, Division of Biokinesiology and Physical Therapy
1540 Alcazar Street, CHP 155, Los Angeles, CA 90089-9006
- 07/11– 08/14 **Project Coordinator, Dose Optimization for Stroke Evaluation**
Principal Investigators: Nicolas Schweighofer, PhD, Carolee Winstein, PT, PhD, FAPTA
Funding: NIH, Eunice Kennedy Shriver Natl Inst of Child Health and Human Development (HD065438)
University of Southern California, Division of Biokinesiology and Physical Therapy
1540 Alcazar Street, CHP 155, Los Angeles, CA 90089-9006
- 01/10 – 07/11 **Physical Therapist, Home Health**
Center for Physical Therapy
Home Health, (562) 900-0147
- 07/09 – 07/11 **Physical Therapist, Outpatient Neurological and Orthopedic**
Kern and Associates Physical Therapy, Santa Monica, CA
2901 Wilshire Boulevard, Suite #440, Santa Monica, CA 90403
- 05/07 – 12/08 **Study Coordinator, Muscle-Specific Strengthening Effectiveness Post Lumbar Microdiscectomy**
University of Southern California, Los Angeles, Division of Biokinesiology and Physical Therapy
1540 Alcazar Street, CHP 155, Los Angeles, CA 90089-9006
- 06/04 – 08/04 **Undergraduate Research Assistant—Summer Research Program, Biomechanics**
Des Moines University, Des Moines, IA
3200 Grand Avenue Des Moines, IA 50312

Institutional Service

- 2022 – **Education Committee**
American Society of NeuroRehabilitation (ASNR)
- 2022 – **Faculty Council, elected**
University of Southern California, Los Angeles, Division of Biokinesiology and Physical Therapy
- 2022 – **PT Hub Committee, chair**
University of Southern California, Los Angeles
- 2020 – **Committee on Information Services**
University of Southern California, Los Angeles
- 2019 – **Doctor of Physical Therapy Admissions Committee**
University of Southern California, Los Angeles, Division of Biokinesiology and Physical Therapy
- 2019 – **Information Technology Committee, co-chair**
University of Southern California, Los Angeles, Division of Biokinesiology and Physical Therapy
- 2022 – 2023 **Neuro Symposium Honoring Carolee Winstein Planning Committee**
University of Southern California, Los Angeles, Division of Biokinesiology and Physical Therapy
- 2020 – 2022 **Faculty Affairs, elected**
University of Southern California, Los Angeles, Division of Biokinesiology and Physical Therapy
- 2020 – 2021 **Doctor of Physical Therapy Student Engagement Committee**
University of Southern California, Los Angeles, Division of Biokinesiology and Physical Therapy
- 2019 – 2021 **Division Institute for Excellence in Teaching**
University of Southern California, Los Angeles, Division of Biokinesiology and Physical Therapy

Mentorship Experience

- 2013 – **Neurologic Resident Mentor**
University of Southern California
Lisa Baik, 2018-2020

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Jessica Axelrod, 2018-2020
David Bellard, 2019-2020
Laura Swan, 2019-2020
Nicole Gobreial, 2019-2020
Karleen Smith, 2015-2016
Nora Darakjian, 2014-2015
Shari MacDonald, 2014-2015
Erin Fitzgerald, 2013-2014
Ryan Frendeway, 2013-2014

2012 – 2016 **Undergraduate Student Mentor**

Sarah Urke, 2013 - 2015
Kathleen Hwang, 2013 - 2014
Rosa Campos, Summer 2012

2011 – 2016 **Doctor of Physical Therapy Student Mentor**

University of Southern California
Kellen Matsuno, Class of 2018
Narek Mazmayan, Class of 2018
Shawna Israel, Class of 2016
Natalie Green, Class of 2016
Alisha Lacewell, Class of 2015
Leah Robillos, Class of 2015
Krista Gorciak, Class of 2015

Professional Memberships

2006 – American Physical Therapy Association
2021 – American Society of Neurorehabilitation

Publications

Tilson J, **Martinez C**, MacDowell S, D'Silva L, Howard R, Roth H, Skop K. Use of the knowledge to action model improved physical therapist adherence to a common clinical practice guideline across multiple settings: a multisite case series. *BMC Health Services Research*. 2022; 22:1462.

Martinez CA, Tilson JK. A controlled comparison of a flipped classroom evidence based practice course delivered online or on-campus. *BMJ Evidence-Based Med*. 2021 Jan; bmjebm-2020-111522.

Martinez CA, Bacon H, Kim BK, Wolf SE, Woodbury ML, Rowe V, Winstein C. A Reaching Performance Scale for Two Wolf Motor Function Test Items. *Arch Phys Med Rehabil*. 2020 May; 2020;S0003-9993(20)30292-6.

Dobkin B, **Martinez CA**. Designing a clinical trial in neurorehabilitation. In: Dietz V and Ward NS, eds. *Oxford Textbook of Neurorehabilitation, 2e*. Oxford, England: Oxford University Press; 2020. 35-45.

Winstein C, Kim BK, Kim S, **Martinez CA**, Schweighofer N. Dosage Matters: A Phase IIb Randomized Controlled Trial of Motor Therapy in the Chronic Phase after Stroke. *Stroke*. 2019 June.

Winstein C, Kim B, Kim S, **Martinez C**, Schweighofer N. Dosage Matters: A Randomized Controlled Trial of Rehabilitation Dose in the Chronic Phase after Stroke. bioRxiv. 2018 Jan 1:441253.

Dobkin B, **Martinez CA**. Wearable sensors to monitor, enable feedback and measure outcomes of activity practice. *Current Neurology and Neuroscience Reports*. 2018; 18:87.

Martinez CA, Mintz E, Ecsedy AE, Fisher BE. Constraining movement reveals motor capability in chronic stroke: an initial study. *Clin Rehab*. Sept 1 2016.

C.Martinez – Curriculum Vitae

Wang X, Liu BJ, **Martinez C**, Zhang X, Winstein CJ. Development of a novel imaging informatics-based system with an intelligent workflow engine (IWEIS) to support imaging-based clinical trials. *Comput Biol Med.* Mar 28 2015.

Martinez CA, Wang C. Structural constraints on learning in the neural network. *Journal of Neurophysiology.* 2015;114(5):2555-2557.

Liu BJ, Winstein C, Wang X, Konersman M, **Martinez CA**, Schweighofer N. Imaging informatics-based ePR system for providing decision support in evaluating dose optimization in stroke rehabilitation. Proc. SPIE 8319, *Medical Imaging.* 2013.

Poster/Platform Presentations

Martinez C, Tilson J. A bibliometric analysis of statistical terms used in American Physical Therapy Association Journals: Pre- to Post-COVID lockdown. Platform presentation. 10th International Conference of the International Society of EBHC with 10th International Conference for EBHC Teachers and Developers. Taormina, Italy. October 27 2023.

Ginoza L, Jan M, **Martinez C**, Johnson J, Haezbroek E, Mayer K. CULTIVATE: COVID-19 retrospective study to assess PT treatment in the ICU for patients with ARF. APTA Combined Sections Meeting. February 2023.

Tilson J, **Martinez C**, MacDowell S, D'Silva L, Howard R, Roth H, Skop K, Dannenbaum E, Farrell L. Therapist and Patient Experiences with Implementation of a Peripheral Vestibular Hypofunction Clinical Practice Guideline. APTA Combined Sections Meeting. February 2023.

Martinez C, Russel S, Howard R, Matharu Y. Impact of PT on Patients with Low '6-Clicks' Score in a Tertiary/Quaternary Care Hospital. Poster Presentation. APTA Combined Sections Meeting. February 2023.

Martinez C, Cain A, Demers M, Kim B, Winstein C. Do movement quality metrics improve our understanding of the restitution-compensation continuum after stroke? Poster Presentation. Society for Neuroscience Meeting. November 2022.

Martinez C, MacDowell S, Crowner B, Dannenbaum E, D'Silva L, Farrell L, Roth H, Skop K, Howard R, Tilson J. Implementing peripheral vestibular hypofunction clinical practice guidelines: a multicenter case series promoting therapist behavior change. Poster Presentation. APTA Combined Sections Meeting. February 2022.

Andersen M, Sebelski C, **Martinez C**, Vagy J, Nelsen M, Kirages D, Tilson J. Hybrid and Traditional Instruction: A controlled comparison of student performance in a clinical skills course. Platform Presentation. Educational Leadership Conference: American Physical Therapy Association (Virtual), October 2020.

Andersen M, Vagy J, Kirages D, Nelsen M, **Martinez C**, Sebelski C, Tilson J. Translation of a traditional DPT clinical course into a hybrid online/on-campus model. California Physical Therapy Association Annual Conference. October 3-4 2020. Virtual Conference.

Tilson JK, **Martinez C**, MacDowell S, Crowner B, Dannenbaum L, D'Silva L, Farrell L, Roth HR, Skop K. *Is Research Making You Dizzy?* How to Translate the Vestibular Clinical Practice Guidelines into Practice. Platform Presentation. Combined Sections Meeting 2020. Denver, CO.

Tilson JK, **Martinez C**, MacDowell S, Crowner B, Dannenbaum L, D'Silva L, Farrell L, Roth HR, Skop K. Activating the Knowledge to Action framework: a five-site implementation case series in rehabilitation settings in the United States. Platform presentation. 8th International Conference of the International Society of EBHC with 9th International Conference for EBHC Teachers and Developers. Taormina, Italy. November 09 2019.

Martinez C, Tilson JK. Teaching EBP in a flipped classroom model: a controlled comparison between learning on-campus and online. Platform presentation. 8th International Conference of the International Society of EBHC with 9th International Conference for EBHC Teachers and Developers. Taormina, Italy. November 07 2019.

Matthews N, Brown C, **Martinez C**. Impact of a Simulated Case Conference on Student Physical Therapist Self Efficacy in the Management of Patients with Neurologic Conditions. 2019 Educational Leadership Conference. Bellevue, WA. October 20 2019.

Martinez CA, MacDowell S, Crowner B, Dannenbaum E, D’Silva LJ, Farrell L, Roth HR, Skop K, Howard R, Tilson JK. Implementing the APTA Clinical Practice Guidelines for Peripheral Vestibular Hypofunction: preliminary results of a multicenter mixed-methods case series. APTA Combined Sections Meeting, Washington, D.C. January 2019.

Mac Dowell S, **Martinez CA**, Roth H, Dannenbaum E, D’Silva LJ, Farrell L, Howard R, Skop K, Crowner B, Tilson JK. Vestibular Rehabilitation: Strategies for Dissemination of Clinical Practice Guidelines through Knowledge Translation. International Conference of Vestibular Rehabilitation. August 2018.

Martinez CA, Kim B, Bacon H, Winstein C. Unraveling the active ingredients that underlie improved movement time in paretic reach to grasp. American Society for Neurorehabilitation Annual Meeting. November 2016.

Bacon H, Kim B, **Martinez CA**, Winstein C. Is task similarity reflected in modified Reaching Performance Scale scores? USC Ostrow School of Dentistry Research Day. March 2016.

Matthews ND, Hershberg JA, **Martinez CA**, Caudill EJ. You are not alone: Development of a local neurologic private practice network—strategies and successes. American Physical Therapy Association Combined Sections Annual Meeting, Poster 3086. February 2015.

Martinez CA, Bacon H, Finley J, Schweighofer N, Winstein C. Can inertial sensors characterize treatment-induced skill acquisition in chronic stroke? Society for Neuroscience Annual Meeting, Poster SS52 184.07. November 2014.

Kuo YL, **Martinez CA**, Dubuc T, Winstein CJ, Schweighofer N, Kulig K, Fisher BE. Reliability of ipsilateral silent period to measure interhemispheric inhibition: preliminary results in non-disabled young adults. Society for Neuroscience Annual Meeting, Poster HH25 164.05. November 2014.

Martinez CA, Bacon H, Finley J, Schweighofer N, Winstein C. Can inertial sensors characterize treatment-induced skill acquisition in chronic stroke? American Society for Neurorehabilitation Annual Meeting, Poster 76. November 2014.

Kuo YL, **Martinez CA**, Dubuc T, Winstein CJ, Schweighofer N, Kulig K, Fisher BE. Reliability of ipsilateral silent period to measure interhemispheric inhibition: preliminary results in non-disabled young adults. American Society for Neurorehabilitation Annual Meeting, Poster 48. November 2014.

Martinez CA, Kuo YL, Dubuc T, Fisher BE. Reliability of ipsilateral silent period to measure interhemispheric inhibition. USC Ostrow School of Dentistry Research Day, March 2014.

Liu B, Winstein C, Wang X, Konersman M, **Martinez CA**, Schweighofer N. An imaging informatics-based ePR system for providing decision support in evaluation dose optimization in stroke rehabilitation. International Society for Optics and Photonics Annual Meeting (SPIE), February 2012. Doi: [10.1117/12.912952](https://doi.org/10.1117/12.912952)

Martinez CA and Kulig K. The Lumbar Instability Test: Does this test’s outcome reflect our clinical assumptions? California Physical Therapy Association Annual Conference, Oakland, CA. September 2008.

Martinez CA, Vardaxis VG, Buchanan P. Anterior cruciate ligament injury and ground reaction forces in pre- and post-adolescent athletes. Des Moines University Research Symposium, Des Moines, IA. April 2005.

Invited Talks

Martinez CA Russell S Matharu Y and Howard R. Keck Medicine patient data to inform clinical decision making. University of Southern California, Division of Biokinesiology and Physical Therapy. Dec 06 2021.

Martinez CA. Stroke Rehabilitation: Upper Extremity Recovery and Physical Activity. University of California, Los Angeles, Department of Physical Therapy. June 06 2018.

Honors and Awards

2023 Award for Commitment to Collaboration & Teaching Excellence, April 2023

C.Martinez – *Curriculum Vitae*

- 2019 USC Division of Biokinesiology and Physical Therapy Commendation for Excellence in Teaching, August 2019
- 2009 Order of the Golden Cane, Division of Biokinesiology and Physical Therapy, May 2009