# Curriculum Vitae SZU-HUA (TERESA) CHEN

Motion Analysis Lab Phone: 626-340-6257
Department of Human Physiology szuhuac@uoregon.edu

122 Esslinger Hall, 1240 University of Oregon, Eugene, OR 97403

Github: <a href="https://github.com/teresashchen">https://github.com/teresashchen</a> Website: <a href="https://teresashchen.github.io/blog/">https://teresashchen.github.io/blog/</a>

## **EDUCATION**

Anticipated in 2019	Ph.D. Candidate in Human Physiology, University of Oregon (GPA: 4.02)
	Emphases: Biomechanics, Motion Analysis, Balance Control, Neuromechanics Chair: Li-Shan Chou, Ph.D.
2012	M.S. in Physical Therapy, National Taiwan University (GPA: 3.96) Emphases: Orthopedic Rehabilitation, Sports Physical Therapy, Ultrasonography Advisors: Huei-Ming Chai, Ph.D., PT & Shwu-Fen Wang, Ph.D., PT
2010	B.S. in Physical Therapy, National Taiwan University (GPA: 4.00)

## **GRANT**

Awarded	
2017	Professional Training Opportunities Program, Northwest Center for Occupational Health and Safety (Principal Investigator) \$5,805
Not awarded	
2018	The DLF Research Scholarship, The De Luca Foundation (Principal Investigator) \$15,000

# AWARD, HONORS, SCHOLARSHIP

2019	Ursula (Sue) Moshberger Scholarship, Department of Human Physiology, University of
	Oregon
2018	Ursula (Sue) Moshberger Scholarship, Department of Human Physiology, University of
	Oregon
2018	Outstanding Reviewer, Gait & Posture
2017	Student Travel Award, ACSM Biomechanics Interest Group
2016-2018	Government Fellowship for Studying Abroad, Ministry of Education, Taiwan (\$16,000/year)
2015-present	Graduate Teaching Fellowship, <i>University of Oregon</i>

## **PUBLICATIONS**

# **Peer Reviewed Journal Articles**

- [3] **Chen, S.-H.**, Lo, O.-Y., Kay, T., & Chou, L.-S. (2018). Concurrent Phone Texting Alters Crossing Behavior and Induces Gait Imbalance During Obstacle Crossing. *Gait & Posture*, *62*, 422–425.
- [2] **Chen, S.-H.** and Chai, H.-M. (2017). The Role of Physical Therapy in Sports Performance. *Formosan Journal of Medicine*, 21(3), 268-275.
- [1] Catena, R.D., **Chen, S.-H.**, & Chou, L.-S. (2017). Does the Anthropometric Model Influence Whole-Body Center of Mass Calculations in Gait? *Journal of Biomechanics*, *59*, 23-28.

#### Book

[1] Extensibility of the Gastrocnemius Muscle-Tendon Unit After Different Static Stretching Techniques Using Ultrasonography (2012). [master thesis]

# **Manuscripts in Preparation**

- [2] Chen, S.-H. and Chou, L.-S. (2019). Fatigue Increases the Risk of Dual-Task Obstacle-Crossing.
- [1] Chen, S.-H. and Chou, L.-S. (2019). Dual-Task Gait Balance Control After A Fatiguing Protocol.

#### **SELECTED PRESENTATIONS**

## **Podium Presentation**

- [6] **Chen, S.-H.** and Chou, L.-S. (2018, May). Fatigue Affects Balance Control Differently During Single- and Dual-Task Walking in Older Workers. *14th Annual Northwest Biomechanics Symposium* (Bellingham, WA).
- [5] **Chen, S.-H.** and Chou, L.-S. (2017, October). Effects of Working Memory and Muscle Fatigue on Dynamic Gait Balance Control in Older Workers. *2017 Northwest Occupational Health Conference* (Spokane, WA).
- [4] Chou, L.-S., **Chen, S.-H.** & Lo, O.-Y. (2017, June). Concurrent Phone Texting Alters Crossing Behavior and Induces Gait Imbalance during Obstacle Crossing. *World Congress of International Society of Posture and Gait Research* (Lauderdale, FL).
- [3] **Chen, S.-H.**, Taylor, J. & Chou, L.-S. (2017, May). Lower Limb Muscle Fatigue Perturbs Gait Balance during Dual-Task Walking. *ACSM's 64th Annual Meeting* (Denver, Colorado)
- [2] **Chen, S.-H.**, Lo, O.-Y., Kay, T., & Chou, L.-S. (2016, July). Effect of Smartphone Texting on Gait Characteristics During Obstacle Crossing. *XIV International Symposium on 3D Analysis of Human Movement* (Taipei, Taiwan).
- [1] **Chen, S.-H.**, Chai, H.-M., Jhu, J.-L., & Wang, S.-F. (2009, March). Contraction Ability of Transversus Abdominis in Elite Fin Swimmers. *The 58<sup>th</sup> Academic Conference of the Physical Therapy Association of ROC (Taiwan)* (Taipei, Taiwan)

## **Poster Presentation (\*** indicates mentee)

- [7] **Chen, S.-H.**, Taylor, J. \*, & Chou, L.-S. (2018, August). Fatigue Affects Balance Control Differently During Single- and Dual-Task Walking in Older Workers. *42th Annual Conference of the American Society of Biomechanics* (Rochester, MN).
- [6] **Chen, S.-H.**, Taylor, J. \*, & Chou, L.-S. (2017, August). Lower Extremity Muscle Fatigue Changes Obstacle-Crossing Behaviors and Working Memory Performance. *41th Annual Conference of the American Society of Biomechanics* (Boulder, CO).
- [5] **Chen, S.-H.**, Taylor, J. \*, & Chou, L.-S. (2017, June). Effect of Muscle Fatigue on Gait Balance Control During Dual-Task Walking. *World Congress of International Society of Posture and Gait Research* (Lauderdale, FL).
- [4] Smith, S.\*, **Chen, S.-H.**, & Chou, L.-S. (2017, May). Effects of Lower Extremity Muscle Fatigue on Dual-Task Obstacle-Crossing in Active and Inactive Young Adults. *13th Annual Northwest Biomechanics Symposium* (Eugene, OR).
- [3] Taylor, J. \*, **Chen, S.-H.**, & Chou, L.-S. (2017, May). Lower Extremity Muscle Fatigue Changes Gait Control and Working Memory Performance in Both Single- and Dual-Tasks. *13th Annual Northwest Biomechanics Symposium* (Eugene, OR).
- [2] **Chen, S.-H.** and Chai, H.-M. (2012, September). Intrarater Reliability of Measurement of Tissue Length of Gastrocnemius Musculotendinous Unit Using Panoramic Ultrasonography. *The 65<sup>th</sup> Academic Conference of the Physical Therapy Association of ROC (Taiwan)* (Kaohsiung, Taiwan).
- [1] Lin, S.-J., **Chen, S.-H.**, Chai, H.-M., Jan, M.-H., Jiang, C.-C. Effects of proprioceptive neuromuscular facilitation stretching technique on knee joint function in people following unilateral total knee

arthroplasty. *The 16<sup>th</sup> International the World Confederation for Physical Therapy Congress* (Amsterdam, Netherland).

#### **Professional Presentations**

- [2] Effects of Fatigue on Balance Control: An Occupational Biomechanics Study. (2018, April). *National Biomechanics Day, University of Oregon*.
- [1] Application of Biomechanics on Industrial Design. (2017, July). *Tatung University* (Taipei, Taiwan).

## **MENTORING EXPERIENCES**

2015-2017 **Jocelyn Taylor,** Department of Biology, University of Oregon

Grant: Undergraduate Research Opportunity Program, University of Oregon, \$1,000

2017-present

Spencer Smith, Department of Human Physiology, University of Oregon

Grant: Undergraduate Research Opportunity Program, University of Oregon, \$1,000

Center of Undergraduate Research and Engagement Travel Award, University of Oregon

#### **TEACHING EXPERIENCES**

University of Oregon, Eugene, OR

Human Anatomy (HPHY321, HPHY323, HPHY325)

Lab Instructor2015-presentAssignment Coordinator2015-2017Lab Facilitator + Leaders of Lab Tours to High Schoolers2017-2018Teaching Assistant Coordinator2018-2019

Hungkuang University, Taichung, Taiwan

**Orthopedic Physical Therapy**: Lecturer, Case Study Leader 2015

National Taiwan University, Taipei, Taiwan 2010-2012

Biomechanics, Kinesiology, Surface Anatomy, Elastic-Adhesive Taping: Teaching Assistant

## **SELECTED CLINICAL EXPERIENCES**

National Sports Training Center, Kaohsiung, Taiwan

2013-2014

Physical Therapist in Olympic Weightlifting/Track and Field Teams

✓ Implemented preventive programs, applied protective devices, developed and carried out rehabilitation program, set timetable for returning to play

Chinese Taipei Olympic Committee, Taipei, Taiwan

2013-2014

Physical Therapist in Olympic Weightlifting/Track and Field Teams

✓ Assisted athletes in participation of international sports competitions

# **SELECTED PROFESSIONAL EXPERIENCES**

Taiwan Physical Therapy Association, Taipei, Taiwan

2015

# **Deputy Secretary- General**

✓ Initiated a collaborative proposal in physical therapy development with 200+ physical therapists, collaborated with staff in execution of national academic conferences, administered publication of Formosan Journal of Physical Therapy (FJPT) quarterly

Pergolas Medical Technology, Taipei, Taiwan

2012-2013

# **Project Manager**

Monitored development of medical products, coordinated with researchers, physicians and manufacture to conduct clinical studies

## **SERVICE**

**Editorial Service** 

Ad-Hoc Reviewer, Gait & Posture 2018-present

**Institutional Service** 

Undergraduate Academic Advisor, *University of Oregon*Laboratory Safety Committee, *University of Oregon*2018-present

**Extracurricular Service** 

Co-founder of SKY@UO, *University of Oregon* 2018-present

#### LICENSES/ CERTIFICATES

Physical Therapist State of New York, USA, since 2016

Taiwan, since 2010

CPR/AED & First Aid MEDIC First Aid

## **PROFESSIONAL ASSOCIATIONS**

Member American Society of Biomechanics
Member American College of Sports Medicine

Member International Society of Posture and Gait Research

#### **RSEARCH PACKAGES**

Proficient SPSS, G\*power, Motion Analysis, Cortex, Dynamometer, Microsoft Office Suite, Zotero,

Cognitive Test, SuperLab, Biodex, R & Rstudio

Familiar Matlab, SPSS Amos, Visual 3D, Git & Github, Electromyography

## **SELECTED COURSEWORK**

Statistics

Educational Statistics (EDUC614, University of Oregon)	Winter 2016
Apply Statistic Design & Analysis (EDUC640, University of Oregon)	Spring 2016
Multiple Regression (EDUC642, University of Oregon)	Fall 2017
Apply Multivariate Analysis (EDUC644, University of Oregon)	Winter 2018
Hierarchical and Mixed Effects (DataCamp)	Fall 2018

Neuroscience

Learning & Memory (PSY533, University of Oregon) Fall 2016
Movement Disorders (HPHY534, University of Oregon) Winter 2017

**Data Science** 

Introduction to Data Science with R (EDLD610, University of Oregon)

Fall 2018

Communicating and Transforming Data (EDLD610, University of Oregon)

Functional Programming with R (EDLD610, University of Oregon)

Spring 2019

# **PROFESSIONAL DEVELOPMENT**

2018	Instructor Training: Tai Ji Quan: Moving for Better Balance® (TJQMBB), Oregon Research Institute
2018	Teaching Academy, Department of Human Physiology, UO
2017	Teaching Academy, Department of Human Physiology, UO
2017	Teaching Academy, Department of Human Physiology, UO
2016	Teaching Academy, Department of Human Physiology, UO
2016-2018	Neurophysiology Journal Club, Department of Human Physiology, UO
2015	Teaching Academy, Department of Human Physiology, UO
2015-2018	Biomechanics Journal Club, Department of Human Physiology, UO