#### **CURRICULUM VITAE**

# Peixuan Zheng

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### **EDUCATION**

2018 – 2022 **Ph.D. in Exercise Science.** The University of Alabama, USA

Concentration: Exercise Physiology

Dissertation topic: Dose-repones effect of short-term exercise on cognitive

function among middle-aged and older adults

Advisor: Elroy J. Aguiar, Ph.D.

2015 – 2018 M.S. in Human Movement Science. Zhengzhou University, CN

Concentration: Exercise Physiology

Thesis topic: Effects of long-term participation in different sports (modern vs.

<u>traditional</u>) on health and fitness Advisor: Lei Zhang, Ph.D.

2011 – 2015 **B.S. in Sport Science.** Beijing Sport University, CN

Thesis topic: <u>Combination of ultrasonography and electromyography to evaluate</u> cross-sectional changes of erector spinae muscles under different workloads

Advisor: Hanjun Li, Ph.D.

#### PROFESSIONAL POSITIONS & EXPERIENCE

### University of Illinois Chicago, USA

2022 – Present Postdoctoral Research Associate. Exercise Neuroscience Research Laboratory

Department of Kinesiology and Nutrition, College of Applied Health Sciences

### The University of Alabama, USA

2018 – Present Graduate Research/Teaching Assistant

Department of Kinesiology, College of Education

Tuscaloosa, AL

Teaching Responsibilities:

- KIN 199 Ecological Approach to Health and Fitness (*primary instructor*)
- KIN 155 Self-Defence for Women (*primary instructor*)

### Zhengzhou University, CN

2015 – 2018 Graduate Research/Teaching Assistant

Exercise Physiology Laboratory, College of Physical Education

Teaching Responsibilities:

- Introduction to Human Movement Science (*lab instructor*)
- Sports science based animal experiments (*lab instructor*)

2016 - 2017

Training Assistant at Guanghua Sports Center

Responsible for strength training and performance assessment

## **Beijing Sport University, CN**

2014 – 2015 Research Assistant

Education Scientific Experiment Center; National Physical Fitness Surveillance

• Responsible for health and fitness evaluation of national representative adult populations.

# **Research Interests**

Exercise and brain health; Physical activity; Cognition and aging; Exercise intervention; Walking; Sedentary behavior; Cardiometabolic health; Wearable technology; Multiple sclerosis.

## Certifications

2022	Graduate Certificate in Quantitative Educational Research, The University of Alabama
2021	Red Cross: CPR/AED for Professional Rescuers
2021	PPCT Sexual Harassment and Rape Prevention (SHARP) Instructor Certification

### **RESEARCH PROJECTS & EXPERIENCE**

# **Funded Projects**

Source: Midwest Roybal Center for Health Promotion and Translation Pilot Funding (Awarded)
Title: Exercise Training, Cognition, and Mobility in Older Adults with Multiple Sclerosis

Role: Principal Investigator

Amount: \$50,0000

2020 Source: The University of Alabama Graduate Research Funding

Title: The dose-repones effect of short-term exercise on cognitive function

Role: Principal Investigator

Amount: \$500

Source: Office of Research and Economic Development, The University of Alabama

Title: Walking to the beat of your own heart: The development of cadence (steps/min)

thresholds associated with moderate to vigorous heart rate intensity

Role: Research Assistant Amount: USD \$5,936

2016 Source: The Education Department of Henan Province, Zhengzhou University, CN

Title: The Comparison of Physical Fitness and Bone Mineral Density among Older Adults

Engaged in Different Sports Role: Research Assistant Amount: CNY \$30,000 2014 Source: National Students Innovation and Entrepreneurship Training Program, Beijing Sport

University

Title: The R&D of the lumbar muscular strength tester

Role: Principal Investigator

Amount: CNY \$5,000

### **Other Projects**

2022 Source: Department of Defense (Not funded)

Title: Cognition, Vascular Function, and Physical Activity in Multiple Sclerosis

Role: Principal Investigator

2021 Agency: Alabama Life Research Institute (Grant Submitted)

Title: A Behavioral Activation and Physical Activity Pilot Program to Improve Physical and

Behavioral Health Outcomes Among Rural Alabama Cancer Survivors

Role: Research Assistant

2016 Agency: Zhengzhou Association of Social Science and Society, Zhengzhou University

Title: Study on Public Sports Service among Land-losing Farmers in Henan Province

Role: Principal Investigator

2015 Agency: Henan Science and Technology Department, Zhengzhou University, CN

Title: The application of the "862" laser medium frequency therapy on athletic injury among

basketball players

Role: Research Assistant

2014 Institution: Beijing Sport University Research Institute

Title: The research of the functional relations between the lumbar muscle strain and the erector

spinae

Role: Research Assistant

# **Peer-Reviewed Journal Publications**

1. **Zheng P**, Pilutti LA, DuBose NG, Motl RW. Vascular Function and Cognition in Persons with Multiple Sclerosis: Preliminary Examination. *Mult Scler Relat Disord*. 2023;15:104578. doi: 10.1016/j.msard.2023.104578

- 2. **Zheng P**, Huynh TLT, Jones CD, Feasel CD, Jeng B, Motl RW. Validity of the 30-Second Sit-to-Stand test as a measure of lower extremity function in persons with multiple sclerosis: Preliminary evidence. *Mult Scler Relat Disord*. 2023;71:104552. doi:10.1016/j.msard.2023.104552
- 3. Chen S, Ma J, Hong J, Chen C, Yang Y, Yang Z, **Zheng P**, Tang Y. A Public Health Milestone: China Publishes New Physical Activity And Sedentary Behaviour Guidelines. *JASSB*. 2022;1(1):9. doi: 10.1186/s44167-022-00009-x
- 4. Aguiar EJ, Mora-Gonzalez J, Ducharme W.S., Moore C.C., Gould R.Z., Amalbert-Birriel A.M., Chipkin R.S., Staudenmayer J., **Zheng P**, Tudor-Locke C. Cadence-based classification of moderate-intensity overground walking in 41- to 85-year-old adults. *Scand J Med Sci Sports*. 2022;10.1111/sms.14274. doi:10.1111/sms.14274
- 5. **Zheng P,** Pleuss JD, Turner DS, Ducharme SW, Aguiar EJ. Association Between Physical Activity (MIMS/day, Peak 30-min MIMS) and Cognitive Function Among Older Adults: NHANES 2011-2014. *The Journal of Gerontology: Series A*, 2022; glac076.

- 6. **Zheng P**, Ducharme SW, Moore CC, Tudor-Locke C, Aguiar EJ. Classification of moderate-intensity overground walking speed in 21-to 85-year-old adults. *Journal of Sports Sciences*. 2022;1-9.
- 7. **Zheng P**, Zhang L, Shi F, Man K, Aguiar EJ. Health and Fitness Comparisons Among Middle-Aged and Older Adults with Long-Term Participation in Four Different Sports. *International Journal of Exercise Science*. 2022; 15(6):1028-39.
- 8. Chen S., Ma J., Hong J., Chen C., Yang Y., Yang Z., **Zheng P**, Tang Y. A public health milestone: China publishes new Physical Activity and Sedentary Behaviour Guidelines. *Journal of Activity, Sedentary and Sleep Behaviors*. 2022; 1(1): 9.
- 9. Jin Y, Yan A, Sun T, **Zheng P**, An, J. Microblog data analysis of emotional reactions to COVID-19 in China. *Journal of Psychosomatic Research*, 2022;161, p.110976.
- 10. Jin Y, Deng C, Wu P, **Zheng P**, AN J. Emoji image symbol's social function and application. *Advances in Psychological Science*. 2022; 30(5):1062.
- 11. Jin Y, Sun T., **Zheng P,** An J. Mass Quarantine and Mental Health during COVID-19: A Meta-analysis. *Journal of Affective Disorders*, 2021; 295: 1335-1346.
- 12. Jin Y, Zhang Z., **Zheng P**, An J. Telepsychology: Applications, advantages, and challenges. *Advances in Psychological Science*, 2021; 30 (1): 1-17.
- 13. **Zheng P.**, Bing C., Ma P. Study on the common athletic injuries and medical control in tennis sports among college students. *Science & Technology of Stationery & Sporting Goods*, 2016, (13):108-110.
- 14. **Zheng P.**, Bing C., Li X. The application of sport elastic tights in sports and exercise science. *Sports Time*, 2016, (8):54.
- 15. Zhang L., **Zheng P.**, Zhao Z. Structural reorganization and system reform in physical curriculum. *Journal of Jiangsu Institute of Commerce*, 2016, (5):43-46.
- 16. Liu Y., Bing C., **Zheng P**. The analysis of the investigating report on college students' awareness of the new National Student Physical Health Standard. *Sports Time*, 2016, (13):32.
- 17. Bing C., Li X., Liu Y., **Zheng P**. A feasibility study on offering shuttlecock P.E. Courses in Shandong Normal High Schools. *Sports Time*, 2016, (13):77.
- 18. Fu C., Bing C., Li X., **Zheng P**. Research on tennis teaching mode in colleges and universities under the background of "Sunshine Sports". *Science & Technology of Stationery & Sporting Goods*, 2016, (13):91-92.

#### *Under Review:*

- 1. **Zheng P,** Dejonge S, Flores VA, Jeng B, & Motl RW. Systematic Review and Meta-Analysis of Sedentary Behavior in Persons with Multiple Sclerosis. Ann Phys Rehabil Med.
- 2. Jeng B, DuBose NG, Martin TB, Šilić P, Flores VA, **Zheng P**, & Motl RW. An Updated Systematic Review and Quantitative Synthesis of Physical Activity Levels in Multiple Sclerosis: Is the Gap Narrowing? Am J Phys Med Rehabil.
- 3. Flores VA, Šilić P, DuBose NG, **Zheng P,** Jeng B, & Motl RW. Exercise Training and Health-Related Quality Of Life In Adults With Multiple Sclerosis: A Systematic Review and Meta-Analysis of Randomized Controlled Trials. Mult Scler Relat Disord.

- 4. Ducharme W.S., Pleuss J., Turner D., **Zheng P.**, Aguiar E.J. Normative Peak and Daily Physical Activity Values for Monitor-Independent Movement Summary (MIMS) Units: NHANES 2011-2014. *American Journal of Epidemiology*.
- 5. Jin Y., Sun T., An J., **Zheng P.**. A Meta-analytic Review of the Relationships between Self-compassion and Post-traumatic Stress Disorder. *Clinical Psychology Review*.
- 6. Yan A., Su J., Shen J., An J., **Zheng P**. The relationship between mindfulness and bedtime procrastination in technical IT employees. *Computers in Human Behavior*.
- 7. Jin Y., Yu M., **Zheng P.,** An J. Team up: Find Self-esteem and Control in Internet Gaming Teams. *Children and Youth Services Review.*
- 8. Yan, A., Kang Y., Jin Y., **Zheng P.,** An J. The Mechanism of the Influence of Self-Portrait Investment Behaviour on the Body Image among Female College Students: A Mediation Effect. *Journal of Psychosomatic Research*.

# In Preparation:

- 1. Aguiar E.J., Turner D.T., Pleuss J.D., Zheng P, Benitez C., & Ducharme S.W. Associations between physical activity (daily volume and peak intensity) and metabolic syndrome: NHANES 2012-12 and 2013-14. JAMA Network Open.
- 2. **Zheng P.**, Richardson T.M., MacDonald V.H., McDonough M.I., Man K., Aguiar E.J. Cognitive Function in Relation to Vascular Function After A Single Bout of Walking in Physically Inactive Older Adults. J
- 3. **Zheng P.**, Richardson T.M., MacDonald V.H., McDonough M.I., Man K., Aguiar E.J. The Effects of Acute Exercise on Cognitive Function in Healthy Older Adults: A Systematic Review with Meta-Analysis.

## **Peer-Reviewed Conference Abstracts & Presentations**

- 1. **Zheng P,** Dejonge S, Flores VA, Jeng B, & Motl RW. Systematic Review and Meta-Analysis of Sedentary Behavior in Persons with Multiple Sclerosis. 2023 Consortium of Multiple Sclerosis Centers (CMSC) Annual Meeting, May 31-June3, 2023, Aurora, CO. (Accepted)
- 2. Jeng B, DuBose NG, Martin TB, Šilić P, Flores VA, **Zheng P,** & Motl RW. Physical Activity Levels in Multiple Sclerosis: An Updated Systematic Review and Quantitative Synthesis. 2023 Consortium of Multiple Sclerosis Centers (CMSC) Annual Meeting, May 31-June3, 2023, Aurora, CO. (Accepted)
- 3. Flores VA, Šilić P, DuBose NG, **Zheng P,** Jeng B, & Motl RW. Exercise Training and Health-Related Quality of Life in Adults with Multiple Sclerosis: A Systematic Review and Meta-Analysis of Randomized Controlled Trials. 2023 Consortium of Multiple Sclerosis Centers (CMSC) Annual Meeting, May 31-June3, 2023, Aurora, CO. (Accepted)
- 4. **Zheng P.**, Pleuss J., Turner D., Ducharme W.S., Aguiar E.J. Dose-Response Association Between Habitual Physical Activity and Cognitive Function Among Older Adults: NHANES 2011-2014. *The annual meeting of the American College of Sports Medicine*, May 31-June 4, 2022, San Diego, CA.
- 5. **Zheng P.**, Pleuss J., Turner D., Ducharme W.S., Aguiar E.J. Association Between Physical Activity (MIMS/day, Peak 30-min MIMS) and Cognitive Function Among Older Adults: NHANES 2011-2014. *The annual meeting of the Southeast Chapter of the American College of Sports Medicine (SEACSM)*, February 17-19, 2022, Greenville, SC.

- 6. **Zheng P.**, Ducharme W.S., Moore C.C., Tudor-Locke, C., Aguiar E.J. Classification of Moderate-Intensity Walking Speed During Overground Walking. 8th International Society for Physical Activity and Health Congress, virtual, October 12 17, 2021. (*Published*)
- 7. Aguiar E.J, Pleuss J., Turner D., **Zheng P.**, Ducharme W.S., Association between MIMS/day and metabolic syndrome risk factors: NHANES 2011–2014. 8th International Society for Physical Activity and Health Congress, virtual, October 12 17, 2021. (*Published*)
- 8. **Zheng P.**, Zhang L., Shi F., Man K., Aguiar E.J. The effects of long-term participation in four different sports on cardiovascular risk factors among Chinese adults. *The annual meeting of the Southeast Chapter of the American College of Sports Medicine (SEACSM)*, February 2021, virtual.
- 9. **Zheng P.**, MacDonald H.V., Fedewa M.V, Aguiar E.J. (2020). The Use of Walking Cadence to Gauge Physical Activity Intensity. *Southeastern Universities Graduate Research Symposium at the University of Alabama*, April, 2020 ePoster presentation due to COVID-19.
- 10. **Zheng P.**, Richardson M, MacDonald H, et al. (2019) Long-term Participation in Four Different Sports (Aerobics, Tai-chi, Track And Field And Diabolo): A Comparison Of Fitness Measures: 2547 Board# 8 May 29 9: 30 AM-11: 00 AM[J]. *Medicine & Science in Sports & Exercise*, 2020, 52(7S): 688. *The annual meeting of the American College of Sports Medicine*, May 2020 ePoster presentation due to COVID-19. (Published)
- 11. **Zheng P.**, Richardson M.T., MacDonald H.V., Zhang L., Shi F. (2019). Long-term Participation In Four Different Sports (Aerobics, Tai-chi, Track And Field And Diabolo): A Comparison Of Fitness Measures. *The annual meeting of the Southeast Chapter of the American College of Sports Medicine (SEACSM*), #P202 February, 2020, Jacksonville, FL.
- 12. Zhang, L., Li H., Li Z., **Zheng P.**, Chen Y. (2017) A systematic review of the effects of blood flow restriction (Kaatsu) training on muscle fitness. *The Henan Province Sports Science Research Award Conference in Colleges and Universities.* #14608 September 2017, Zhengzhou.
- 13. Zhang, L., **Zheng P.**, Li H., Li Z., Chen Y. (2017) The effects of different "jump-landing" training modes on the joints stability among college students. *The Henan Province Sports Science Research Award Conference in Colleges and Universities.* #14619 September 2017, Zhengzhou.
- 14. Li Z., Zhang, L., **Zheng P.**, Li H., Chen X. (2017) Analyses on the current situation and countermeasures of upper-limb athletic injuries in male athletes of north-western CUBA university league. *The Henan Province Sports Science Research Award Conference in Colleges and Universities.* #14868 September 2017, Zhengzhou.
- 15. Zhang, L., **Zheng P.**, Li Z., Li H., Chen Y. (2017) A study on the motivation and addiction post muscular training in male college students. *The Henan Province Sports Science Research Award Conference in Colleges and Universities*. #14890 September 2017, Zhengzhou.
- 16. **Zheng P.**, Zhang L., Li H. (2016) The Effect of Small Molecular Polypeptide on the Immune System of Wheelchair Athletes. *The 11th Beijing International Forum on Rehabilitation ICF, World Report on Disability and Rehabilitation Counselling*. Poster Presentation Centre. December 2016, Beijing, China.
- 17. **Zheng P.**, Zhang L. (2016). Study on the common injuries and medical issues in tennis sport among college students. *The 11th National University Tennis Research Scientific Conference, Zhengzhou University*. July, 2016, Zhengzhou, China.
- 18. **Zheng P.**, Zhang L., Li X., L., Zhao, Z. (2016). Study on Public Sports Service among Landlosing Farmers in Henan Province. *National Sports Social Science East Lake Conference*. Scientific Research Award and Poster. Wuhan Sport University, December 2016, Wuhan, China.

- 19. Zhang L., **Zheng P**. (2016). A study on the development and trend of China's sports rehabilitation industry under the "New Normal" sate. *National Sports Social Science East Lake Conference*. Wuhan Sport University, December 2016, Wuhan, China.
- 20. Zhang L., **Zheng P**., Li H. (2016). The application of the "862" laser medium frequency therapy on athletic injury among basketball players. *National Sports Medical Supervision and Rehabilitation Academic Conference*. Scientific Research Award and Poster. November 2016, Wuhan, China
- 21. Bing C., Li X., Liu Y., **Zheng P**. (2016) A feasibility study on offering shuttlecock P.E. Courses in Shandong Normal High Schools. The 8th annual meeting of the Chinese Sports Science Association for Outstanding Young Scholars and Sports Workers, November 2016, Wuhan, China.
- 22. Bing C., Zhao Z., **Zheng P**. Research on the Reform and Development of P.E. Courses in Colleges and Universities. *The 2nd Research Symposium in Sports Development*. Research Award and poster presentation. October 2016, Suzhou, China.
- 23. **Zheng P.**, He F. (2014) Study on Characteristics of Ultrasonic EMG the Erector Spinal Muscle under Different Loads. *The 24th National Congress of Chinese Physiological Society and Physiology Academic Conference*. October, 2014, Shanghai, China.

# **Laboratory and Computer Skills**

- Statistical Software and Language: R, SAS, Mplus, JAGS, SPSS, Python, G\*Power, LaTeX
- Processing spatiotemporal parameters of gait from the GAITRite® data
- Familiarity with wearable sensors (e.g., ActiGraph, activPAL), heart rate monitors (e.g., Polar, Zephyr), and surface electromyography
- Basic electronics and testing in Exercise Physiology laboratory; Biodex System 3 & Humac Norm Dynamometry, Biopac & EMGworks signal acquisition

# **HONORS AND AWARDS**

2022	Most Outstanding Student Awards, College of Education, The University of Alabama
2021 – 2022	Anna and Harold Paige Scholarship, College of Education, The University of Alabama USD \$1,200
2021 – 2022	William W. Taube Quasi Doctoral Scholarship, College of Education, The University of Alabama USD \$1,200
2020 – 2021	UA College of Education Doctoral Student Summer Research Stipend Program College of Education, The University of Alabama USD \$7,000
2015 – 2017	National Graduate Students Academic Scholarship (Category A) Zhengzhou University, CN CNY \$24,000
2014	Undergraduate Student Scholarship Beijing Sport University CNY \$800

2014 School Honor Student Beijing Sport University

# PROFESSIONAL AFFLATIONS & SERVICE

# **Professional Memberships**

2019 – Present	Southeast Region, American College of Sports Medicine - Member
2019 – Present	American College of Sports Medicine - Member
2019 – Present	International Society for Physical Activity and Health - Member
2021 – Present	National Strength and Conditioning Association (NSCA)

# Scientific Journal Peer Reviewer

2022 – Present International Journal of Exercise Science

# **University/Community Service**

2020	Student Research Judges for Undergraduate Research & Creative Activity Conference, The University of Alabama
2021	Guest speaker, <i>Physical Activity and Brain Health</i> , Capstone Village Retirement Center, Tuscaloosa, AL