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Zhujun Pan, Ph.D.

Associate Professor

Department of Kinesiology, Mississippi State University 241 McCarthy Gymnasium, Mississippi State, MS 39762

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EDUCATION

Ph.D. Louisiana State University, Baton Rouge, LA

(2009 - 2014) Department of Kinesiology

Concentration: Movement Science

M.Ed. Capital Institute of Physical Education, Beijing, China

(2006 - 2009) Department of Kinesiology

Concentration: Kinesiology

B.Eng. SouthWest Jiaotong University, Chengdu, SC, China

(2001 - 2005) College of Engineering

Major: Electronic Engineering

ACADEMIC EXPERIENCE

Associate Professor Mississippi State University August. 2021 – Present Department of Kinesiology

Assistant Professor Mississippi State University
Jan. 2015 – August.2021 Department of Kinesiology

Graduate Teaching Assistant Louisianan State University

Aug. 2009 – May. 2014 School of Kinesiology

Graduate Research Assistant Capital Institute of Physical Education, China

Sep. 2006 – Jul. 2009 Department of Kinesiology

RESEARCH INTERESTS

- Motor and hemispheric asymmetry in the geriatric population
- Exercise induced neural plasticity and exercise for quality of life
- occupational safety and future workforce in senior care

PEER-REVIEWED JOURNAL ARTICLES

Original Research

- 1. **Pan, Z.***, Fang, Q., Watson, D., Van Gemmert, A. W. A., Aiken, C. Aging reduces manual dexterity and force production asymmetries between the hands. *Journal of Laterality: Asymmetries of Body, Brain, and Cognition, In-Review*. (Impact factor: 1.267)
- 1. Ryuh, Y.J, Lamberth, J., **Pan, Z.**, Conners, F. The Effects of Different Exercise Modalities on Visuospatial Working Memory in Healthy Young Adults. (*Asian Journal of Sport and Exercise Psychology, In-Review*)
- 2. **Pan, Z.***, Talwar, S., Liu, K., Fang, Q., Ryuh, Y-J., Choi, P., Hou, L., Huang, M., Chen, CC. & Lamberth, J. Tai Chi and BINGO Improve Hand Function of Older Women. (*Translational Journal of the American College of Sports Medicine, submitted*)
- 3. Ryuh, Y.J*, Chen, C.-C. (JJ), Conners, Fran., Lamberth, J., & **Pan, Z.** Acute Effect of Skill Random Practice Versus Cardiovascular Exercise on Motor Learning of a Golf Putting Task. (*International Journal of Sport Psychology, Volume 13424*) (impact factor 0.6)
- 4. Watson, D.M., Pan, Z.*, Fang, Q., Van Gemmert, A., Aiken, C. (2022). Age Reduces Motor Asymmetry in a Graphic Task. Lecture Notes in Computer Science, 13424, 1-17 (impact factor 1.363)
- 5. Ryuh, Y.J*, Chen, C.-C. (JJ) **Pan, Z.,** & Lamberth, J. (2022). Impact of acute aerobic exercise on golf putt skill learning in adults with intellectual disabilities. Journal Of Sport & Exercise Psychology, 44, S52-S52. (Impact factor: 3.016)
- 6. Ryuh, Y.J, Chen, C.-C. (JJ), **Pan, Z.**, Gadke, D.L., Elmore-Staton, L.S., Pan, C.-Y., & Cosgriff, A. (2022). Promoting Physical Activity through Exergaming in Young Adults with Intellectual Disabilities: A Pilot Study. International Journal of Developmental Disabilities, 68(2), 227-233. (Impact factor: 0.780)
- 7. Kodithuwakku Arachchige, S. N. K., Chander, H.*, Knight, A. C., Chen, C.-C., **Pan, Z**., & Turner, A. J. (2020). Impact of foot arch type and minimalist footwear on static postural stability. *Footwear Science*, 12(3), 173-183. (Impact factor: 0.370)
- 8. Smith, W, Chen, C.-C. (JJ), Ryuh, Y.J, **Pan, Z**, Gadke, D.L., Elmore-Staton, L.S., Pan, C.-Y., & Cosgriff, A. (2019). Effects of Exergaming on Mental Health and Manual Motor Function in Young Adults with Intellectual Disabilities: A Pilot Study. *The Mississippi Association for Health, Physical Education, Recreation and Dance (MAHPERD) Journal.* 6(1), 12-20 (Impact factor: N/A)
- 9. Pan, Z*., Talwar, S., Plamondon, S., & Van Gemmert, A. W. A. (2019) Characteristics of Bi-Directional

- Unimanual and Bimanual Drawing Movements: The application of the Delta-Lognormal Models and Sigma-Lognormal Model. *Pattern Recognition Letters*. 121, 97-103 (Impact factor: 2.164)
- 10. **Pan, Z*.,** & Van Gemmert, A. W. A. (2018) The Control of Amplitude and Direction in a Bimanual Coordination task. *Human Movement Science*, S0167-9457(17)30944-2 (Impact factor: 2.186)
- 11. Aiken, C. A*., Pan, Z., & Van Gemmert, A. W. A. (2017) The Effects of A Two-Step Transfer on A Visuomotor Adaptation Task. Experimental Brain Research, 235(11), 3459-3467 (Impact factor: 2.183)
- 12. Hou, L., Song, Z., **Pan, Z.,** Cheng J., Yu Y., & Wang J*. (2016) Decreased Activation of The Subcortical Brain Areas in Motor Fatigue State: An fMRI Study. *Frontiers in Psychology*, 7, 1154 (Impact factor: 2.321)
- 13. **Pan, Z.,** & Van Gemmert, A. W. A.* (2016) Peripheral Neuropathy Reduces Asymmetries in Inter-Limb Transfer in A Visuo-Motor Task. *Laterality: Asymmetries of Body, Brain and Cognition*, 21(3), 255-66 (Impact factor: 1.267)
- 14. Aiken, C. A., **Pan, Z.**, & Van Gemmert, A. W. A.* (2015) Limb-Dominance and Its Effects on The Benefits of Intralimb Transfer-of-Learning A Visuo-Motor Aiming Task. *Journal of Motor Behavior*, 47, 509-521 (Impact factor: 1.327)
- 15. **Pan, Z.,** & Van Gemmert, A. W. A.* (2013) The Effects of Aging on the Asymmetry of inter-limb transfer in a Visuo-Motor Task. *Experimental Brain Research*, 229 (4), 621-633. (Impact factor: 2.183)
- 16. **Pan, Z.,** & Van Gemmert, A. W. A.* (2013) The Direction of Bilateral Transfer Depends on the Performance Parameter. *Human Movement Science*, *32*(5), 1070-1081 (Impact factor: 2.186)
- 17. Yin, X*., & **Pan, Z.** (2008) A Study of Home Advantage on Event Group of Olympic Items. *Journal of Wuhan Institute of Physical Education*, 42(10), 62 66. (Impact factor: N/A)

Review Articles

- 2. Fang, Q., Wang, J*., Van Gemmert, AWA., Aiken, C, MTehrani, B., Brown, S., and **Pan, Z***. Systematic Review and Meta-Analysis on Event-Related Potential Components During Driving to Improve Traffic Safety. (Frontiers in Human Neuroscience-Cognitive Neuroscience, Accepted) (impact factor 3.169)
- 3. Hill, C, Van Gemmert, A. W. A., Hou, L., Fang, Q., and **Pan, Z***(2019). Asymmetry in the Aging Brain: A Review of Cortical Activation Patterns and the Implications for Motor Function. *Journal of Laterality:* Asymmetries of Body, Brain, and Cognition, 25(4):413-429. (Impact factor: 1.267)
- 4. Fang, Q., Aiken, C. A., Fang, C., & **Pan, Z*.** (2019). The Impacts of Exergames on Physical and Cognitive Behaviors in Individuals with Autism Spectrum Disorder (ASD): A Systematic Review. *Games for Health Journal*. 8(2), 74-84 (Impact factor: 1.876)
- 5. **Pan, Z*.,** Su, X., Fang, Q., Hou, LJ., Lee, Y., Chen, CC, Lamberth, J., & Kim, ML. (2018) The Effects of Tai Chi Intervention on Healthy Elderly using Neuroimaging and EEG: A Systematic Review. *Frontiers in Aging Neuroscience*, 18;10:110. (Impact factor: 4.504)

- 6. Zou, L*., Huang, T., Tsang, T., **Pan, Z.,** Wang, C., Liu, Y., Sun, L., & Wang, H. (2018) Hard Martial Arts for Cognitive Function Across the Lifespan: A Systematic Review. *Archives of Budo,* 14 (Impact factor: 1.506)
- 7. Zou, L*., Pan, Z., Yeung, A., Talwar, S., Wang, C., Liu, Y., Shu, Y., Chen, X., & Thomas G.A. (2017) A Review Study on the Beneficial Effects of Baduanjin. *Journal of Alternative and Complementary Medicine*, 00, 1-12 (Impact factor: 1.622)

PEER-REVIEWED CONFERENCE PROCEEDINGS:

- 1. Conner, N., Griffith, A., Pan, Z., Wang, Y., Ma, J., & Wang, J. The Use of Assistive Robots to Improve the Mobility of the Aging Population. *IISE Annual Conference and Expo 2023*.
- 2. Haider, M., Patel, N., Nance, A., **Pan, Z.,** Wang, J., Wang, Y., & Ma, J. Assistive Robots in Senior Care for domestic tasks: A review. *IISE Annual Conference and Expo 2023*.
- 3. Chen, P., Gourley, K., **Pan, Z.,** Ma, J., Wang, J., & Wang, Y. Assistive technology on workstation and activity of daily living among the elderly. *IISE Annual Conference and Expo 2023*.
- 4. Kashef, A., Ma, J., **Pan, Z.,** Wang, J., & Wang, y. Geriatric Nursing Workforce and the elderly patients: A review article. *IISE Annual Conference and Expo 2023*.
- 5. Watson, D., **Pan, Z.,** Fang, Q., Van Gemmert, A. W. A., Aiken, C. A. (2022) Age Reduces Motor Asymmetry in Graphic Task. *20th Conference of the International Graphonomics Society* (IGS).
- 6. MTehrani, B., Wang, J., & **Pan, Z.** (2020) Assessment of Worker Mental Workload using Electroencephalography (EEG) for Fall Hazard Prevention. *2020 Construction Research Congress (CRC)*
- 7. Kodithuwakku Arachchige, SNK., Chander, H., Knight, AC., Chen, C., **Pan, Z**., Turner, AJ. (2020) Impact of foot type and minimalist footwear on static postural stability. *Mid-South Biomechanics Conference* (*MSBC*)
- 8. Turner, AJ, Chander, H., Knight, AC., Chen, C., **Pan, Z.,** & Kodithuwakku Arachchige, SNK. (2020) Hydrotherapy vs. Land-Based Exercises on Dual-Task Dynamic Balance in A Geriatric Population. *Southeast Chapter of American College of Sportsmedicine (SEACSM)*
- 9. Fang, Q., Aiken, C. A., Van Gemmert, A. W. A., Xu, J. & **Pan, Z.** (2019) Ageing reduces performance asymmetry between the hands in force production and manual dexterity. *19th Conference of the International Graphonomics Society* (IGS).
- 10. Talwar, S., **Chen, C.,** Lamberth, J., Ryuh, Y., Choi, P., Hommel M., & **Pan, Z**. (2019) Effects of Tai Chi Exercise versus BINGO on Fine Motor Functions in Older Adults. *American College of Sportsmedicine (ACSM)*

- 11. Talwar, S., **Chen, C.,** Lamberth, J., Ryuh, Y., Choi, P., Hommel M., & **Pan, Z**. (2018) Effects of Tai Chi Exercise versus BINGO on Fine Motor Functions in Older Adults. Midwest *Chapter of American College of Sportsmedicine (MWACSM)*
- 12. Su, X., **Pan, Z.,** McWhirter, K., Fang, Q., Hou, L., Chen, C-C., Lee, Y., & Kim, M. (2018) THE Effects of Tai Chi Intervention on Healthy Elderly Using Neuroimaging and EEG. *Southeast Chapter of American College of Sportsmedicine (SEACSM)*
- 13. Fang, Q., Talwar, S., Swain, J., Shinn, J., Lamberth, J., Liu, K., Huang, M., & Pan, Z. (2018) Comparison of Gross Motor Function among Different Age Groups of the Older Adult Population Residing in Independent Living. *Southeast Chapter of American College of Sportsmedicine (SEACSM)*
- 14. Choi, P., Talwar, S., Key, J., Hartmann, K., Bass, M., Chen, C-C., **Pan, Z.** (2018) The Relationship among Manual Dexterity, Upper and Lower Extremity Strength in Older Adults Residing in Independent Living. *Southeast Chapter of American College of Sportsmedicine (SEACSM)*
- 15. Ryuh, Y., Talwar, S., McBeth, J., McWhirter, K., Siosin, N., Chen, C-C., & **Pan, Z.** (2018) Comparison of Upper Extremity Strength among Different Age Groups of the Older Adult Population. *Southeast Chapter of American College of Sportsmedicine (SEACSM)*
- 16. Talwar, S., Hommel, M., Ross, K., Pate, T., Hunt, A, Lamberth, J., Liu, K., & **Pan, Z.** (2018) Relationship of Fine Motor Functions and Fundamental Memory and Cognitive Functions in Older Adults. *Southeast Chapter of American College of Sportsmedicine (SEACSM)*
- 17. Huang M, Dai XL, **Pan Z**, Fang Q, Adah F, Barnes L, and Benghuzzi H. (2018) Cardiovascular Responses Following Different Types of Breathing Exercises. 34th Southern Biomedical Engineering Conference (SEBC)
- 18. Talwar, S., **Pan, Z.**, Plamondon, S., & Van Gemmert, A. W. A. (2017). Characteristics of bidirectional unimanual and bimanual drawing movements. *18*th *Conference of the International Graphonomics Society* (IGS).
- 19. Miller, B.L., Simpson, J.D., Swain, M.T., Pace, R.K., Lowell, R.K., **Pan, Z.**, Knight., A.C., & Chander, H. (2017). The effects of minimalist footwear and fatigue on static balance. *Southeast Chapter of American College of Sportsmedicine (SEACSM)* (poster No. P52).
- 20. Talwar, S., **Pan, Z.**, Plamondon, S., Bidias, S., Martin, A., & Van Gemmert, A. W. A. (2017). Comparing movement properties of unimanual and bimanual movements. *Southeast Chapter of American College of Sportsmedicine (SEACSM)* (poster No. P204).
- 21. **Pan, Z.,** & Van Gemmert, A. W. A. (2016) The effects of Parkinson's disease on spatial interference in a bimanual coordination task. *North American Society for The Psychology of Sport and Physical Activity (NASPSPA)*.

- 22. Hickey, K. M., **Pan, Z.**, Simon, B. A., Thibodeaus, K. S., & Van Gemmert, A. W. A. (2014). The effects of age on spatial interference in a bimanual coordination task. *Society for Neuroscience* (program No.170.12/LL14).
- 23. Aiken, C. A., **Pan, Z.**, & Van Gemmert, A. W. A. (2014). The limit of effector independence: Transfer of a motor skill does not occur when a two-step transformation is required. *North American Society for The Psychology of Sport and Physical Activity (NASPSPA)*.
- 24. Aiken, C. A., **Pan, Z.**, & Van Gemmert, A. W. A. (2013). Transfer occurs within the same limb when a learned skill requires the use of different muscles to perform the task. *Journal of Sport & Exercise Psychology*, 35(Suppl.), S16
- 25. Aiken, C. A., **Pan, Z.,** & Van Gemmert, A. W. A. (2012). Control of visuomotor aiming task transfers within the dominant upper limb. *Society for Neuroscience* (Program No. 679.14).
- 26. **Pan, Z.,** & Van Gemmert, A. W. A. (2012). Parkinson's disease patients may attend to benefits related to smoothness and efficiency in the bilateral transfer of learning. *Society for Neuroscience* (Program No. 755.12)
- 27. Hondzinski, J. M., Li, L., **Pan, Z.**, Prejean, P., & Van Gemmert, A. W. A. (2012) Movement excursion explains associations between gross and fine motor functions in older adults with and without Parkinson's disease. *Journal of Sport & Exercise Psychology*, 34 (Suppl.), S142
- 28. Van Gemmert, A.W.A., Li, L., Prejean, P., **Pan,** Z., Hondzinski, J. M. (2012) Long-term Tai Chi participation benefits fine motor skill function of Parkinson's disease patients. *Journal of Sport & Exercise Psychology*, 34 (Suppl.), S88-S89
- 29. **Pan, Z.,** & Van Gemmert, A. W. A. (2011). Aging reduces learning benefits as a result of the bilateral transfer. *The International Society of Motor Control: Recent Advances in Neural, Computational and Dynamical Approaches* (pp.24). U of Cincinnati, Cincinnati, OH. USA
- 30. **Pan, Z.,** & Van Gemmert, A. W. A. (2011). Improvements of Movement Performance as Result of Bilateral Transfer of Learning. In E. Grassi and J. L. Contreras-Vidal (Eds.), *Proceedings of the 15th Conference of the International Graphonomics Society* (pp.59-62).
- 31. Prejean, P., **Pan, Z.**, Harrison, J., Van Gemmert, A. W. A., Li, L., & Hondzinski, J. M. (2011). Potential benefits of long-term limited Tai Chi training for Parkinson's patients. *Journal of Sport & Exercise Psychology*, 33 (Suppl.), S102-S103
- 32. **Pan, Z.,** & Van Gemmert, A. W. A. (2010). The Asymmetry of Bilateral Transfer of a Visuomotor Rotated Aiming Task. *Society for Neuroscience* (program No. 293.6)

RESEARCH GRANTS AND FUNDING:

External Grant Funded:

Occupational Safety and Health Administration, Department of Labor (DoL) (2022-2023)

Pan, Z., Ma, J., Wang, J., Chen, CC., Lamberth, J. Safe patient handling program for long term care facilities

Role: PI; Funding: \$75,000.00; Status: Funded

2. Future of Work at the Human-Technology Frontier (FW-HTF), NSF (2023)

Ma, J (40%)., **Pan, Z** (30%)., & Wang, J (30%). Supporting Nurse Workforce Development in Future Senior Care Facility Using Intelligent Immersive Virtual Reality

Role: co-PI; Funding: \$150,000.00; Status: Funded

3. National Institute for Occupational Safety and Health (NIOSH) - Pilot Projects Research Training Program (PPRTP), NIH (2022)

Wang, J., **& Pan, Z.** Assessment of Construction Workers' Mental Fatigue to Prevent Safety Hazards Role: co-PI; Funding: <u>\$20,000.00</u>; Status: <u>Funded</u>

4. Civil Money Penalty Grant (CMP), Centers for Medicare & Medicaid Services (CMS) (2020-2023)

Pan, Z., Chen, CC., Lamberth, J., White, A. Bingocize®: An evidence-based health promotion program to improve the quality of life of Mississippi certified nursing facility residents

Role: PI; Funding: \$360,928.00; Status: Funded

5. Global Research Network Grant, Korean National Research Foundation (NRF-2017S1A2A2039405) (2017-2021)

Lee, Y., Kim, ML., Chen, CC., & Pan, Z.

Role: co-PI (International Collaborator); Funding: \$300,000.00; Status: Funded

6. The Southeastern Conference Visiting Faculty Travel Grant Program (2017)

Pan, Z., Lamberth, J., & Huang, M. Effects of Tai Chi Exercise Intervention on Fine and Gross Motor Skills in Older Adults Residing in An Independent Living Facility.

Role: PI; Funding: \$1,428.00; Status: Funded

External Grant Not Funded:

1. Occupational Safety and Health Administration, Department of Labor (DoL) (2021-2022)

Pan, Z., Ma, J., Wang, J., Chen, CC., Lamberth, J. Safe patient handling program for long term care facilities

Role: PI; Funding: \$75,000.00; Status: Not Funded

2. Workforce Innovation and Opportunity Act (WIOA) – Governor's Reserve Funds, Mississippi Department of Employment Security (2021-2023)

Ma, J., **Pan, Z.,** Wang, J., Chen, CC., Stratton-Gadke, K., Taquino, M., Grice, S., Luczak, T. Using Smart Immersive Virtual Reality Technology to Train Nurses in Senior Care Facilities in the State of Mississippi Role: co-PI; Funding: \$250,000.00; Status: Not Funded

3. National Institute for Occupational Safety and Health (NIOSH R03) (2020-2022)

Wang, J., & Pan, Z. Assessment of Mental Fatigue of Workers in Construction Activities to Enhance Situational Awareness and Prevent Safety Hazards

Role: co-PI; Funding: \$133,536.00; Status: Not Funded

4. Blue Cross & Blue Shield of Mississippi Foundation (2019-2020)

Pan, Z., Chen, CC., Lamberth, J. Bringing Tai Chi to Mississippi's Aging Population for Healthy Body and Positive Emotion

Role: PI; Funding: \$15,000.00; Status: Not Funded

5. ORAU Jr. Faculty Enhancement Award (2017)

Pan, Z. Effects of Tai Chi Exercise Intervention on Fine and Gross Motor Skills in Older Adults Residing in An Independent Living Facility.

Role: PI; Funding: \$10,000.00; Status: Not Funded

6. SHAPE (The Society of Health and Physical Educators) America (2016-2017)

Chen CC, Pan, Z., Acute affective and cortical response to exercise in obese adults

Role: co-PI; Funding: \$5,000.00; Status: Not Funded

Internal Grant Funded:

1. MSU ORED Undergraduate Research Program Grant (2019-2020)

Pan, Z., Chen, CC., Lamberth, J., Wang, J., Lee, y., & Lim, S. Bringing Tai Chi to Mississippi's Aging Population for Healthy Body and Positive Emotion

Role: PI; Funding: \$2,000.00; Status: Funded

2. Carnegie Foundation Community Engaged Research Award, MSU (2018-2019)

Pan, Z., Lamberth, J., Chen, CC., Lee, Y., & Lim, Y. Bringing Tai Chi to Mississippi Ageing population.

Role: PI; Funding: \$5,000.00; Status: Funded

3. MSU College of Education Undergraduate Research Grant (2017-2018)

Pan, Z., Chen, CC., Chander, H., Knight, AC., Lamberth, J., & Huang, M. The Effect of Vision on Variety of Balance Measures in Elderly Adults with and without Parkinson's disease.

Role: PI; Funding: \$2,000.00; Status: Funded

4. MSU College of Education Undergraduate Research Grant (2017-2018)

Chen CC, **Pan, Z.,** & Lee, Y. The Impact of Inclusive Soccer Program on Health and Well-being in Young Adults with Intellectual Disabilities.

Role: co-PI; Funding: \$2,000.00; Status: Funded

5. MSU College of Education Undergraduate Research Grant (2016-2017)

Chen CC, **Pan, Z.,** Gadke, D.L., & Elmore-Staton, L.S. Study of exergaming to improve motor functions and sleep behavior in young adults with intellectual disabilities

Role: co-PI; Funding: \$2,000.00; Status: Funded

6. MSU IWGG (International Working Group Grant) (2015)

Chen CC, Pan, Z., Gadke, D.L., & Elmore-Staton, L.S. Physical Activity and Health in Autism

Role: co-PI; Funding: \$2,500.00; Status: Funded

7. LSU James J. Corbett Graduate Summer Research Award (2013, 2014)

Pan, Z., & Van Gemmert W.A.W. Using Delta-lognormal model comparing unimanual and bimanual movements

Role: PI; Funding: \$4,000.00; Status: Funded

8. LSU Lillian Oleson Scholarship (2011, 2012, 2013)

Pan, Z., & Van Gemmert W.A.W. Effects of aging on the inter-limb transfer of learning

Role: Student PI; Funding: \$6,000.00; Status: Funded

9. LSU Life Course and Aging Center Research Scholarship (2009-2013)

Pan, Z., & Van Gemmert W.A.W. Effects of Parkinson's disease and Peripheral Neuropathy on the inter-limb transfer of learning

Role: Student PI; Funding: \$12,000.00; Status: Funded

Internal Grant Not Funded:

1. MSU Advancing Collaborative Research Program (ACR) (2022-2023)

Ma, J., **Pan, Z.**, Wang, J., Luo, C. & Cheng W. Supporting Nurse Workforce Development in Future Senior Care Facility Using Intelligent Immersive Virtual Reality

Role: co-PI; Funding: \$45,000.00; Status: Not Funded

2. MSU College of Education Undergraduate Research Grant (2016-2017)

Harich, C., Knight, A., & **Pan, Z.** Impact of Occupational Footwear and Workload on Human Balance and Muscular Exertion

Role: co-PI; Funding: \$2,000.00; Status: Not Funded

3. MSU IWGG (International Working Group Grant) (2015)

Zhujun Pan, Ph.D. Curriculum Vita

Pan, Z., Chen, CC., Pratte, M., & Hou, L. Asymmetries and Aging: Links to the age-related reduction of motor and hemispheric asymmetry

Role: PI; Funding: \$5,000.00; Status: Not Funded

AWARDS AND MEDIA COVERAGE:

1. Media Coverage, "MSU kinesiology students, faculty bring increased exercise to Mississippi nursing home residents", 2021.

Recognized for influential community-engaged service and research for nursing home residents in Mississippi

https://www.msstate.edu/newsroom/article/2021/03/msu-kinesiology-students-faculty-bring-increased-exercise-mississippi
https://www.educ.msstate.edu/news/msu-kinesiology-students-faculty-bring-increased-exercise-mississippi-nursing-home-residents/

2. Media Coverage, "Kinesiology Professor Awarded Inaugural Excellence in Community Engagement Award With Tai Chi Project", 2019.

Recognized for outstanding community-engaged research accomplishments for older adults in Mississippi

 $\underline{https://www.educ.msstate.edu/news/kinesiology-professor-awarded-inaugural-excellence-community-engagement-award-tai-chi-project/professor-awarded-inaugural-excellence-community-engagement-award-tai-chi-project/professor-awarded-inaugural-excellence-community-engagement-award-tai-chi-project/professor-awarded-inaugural-excellence-community-engagement-award-tai-chi-project/professor-awarded-inaugural-excellence-community-engagement-award-tai-chi-project/professor-awarded-inaugural-excellence-community-engagement-award-tai-chi-project/professor-awarded-inaugural-excellence-community-engagement-award-tai-chi-project/professor-awarded-inaugural-excellence-community-engagement-award-tai-chi-project/professor-awarded-inaugural-excellence-community-engagement-award-tai-chi-project/professor-awarded-inaugural-excellence-community-engagement-award-tai-chi-project/professor-awarded-inaugural-excellence-community-engagement-award-tai-chi-project/professor-awarded-inaugural-excellence-community-engagement-award-tai-chi-project/professor-awarded-inaugural-excellence-community-engagement-award-tai-chi-project/professor-awarded-inaugural-excellence-community-engagement-award-tai-chi-project/professor-award-$

3. Media Coverage, "MSU announces Community Engagement Award honorees", 2018.

Recognized for outstanding community-engaged research accomplishments for older adults in Mississippi

https://www.msstate.edu/newsroom/article/2018/11/msu-announces-community-engagement-award-honorees/

4. Media Coverage, "MSU Kinesiology Brings Tai Chi Exercise to Older Adults in Independent Living", 2018.

Forward Magazine Vol 3 in 2018 by College of Education at MSU, page 36.

5. Graduate Scholar, American Kinesiology Association (AKA), 2013.

Recognized for outstanding academic and leadership accomplishments. Honored for the commitment to promoting and enhancing kinesiology as a unified field of study.

6. Media Coverage, "LSU Taichi has positive effects on Parkinson's disease", 2011.

Recognized for outstanding community services and research accomplishments for older adults and individuals with Parkinson's disease.

https://web.archive.org/web/20170210123844/http://www.lsu.edu/departments/gold/2013/01/taichi_research.shtml

EXTERNAL PARTNERS:

- Mississippi State Department of Health (MSDH), Bureau of Injury and Violence Prevention.
- School of Nursing, University of Mississippi Medical Center
- Department of Physical Therapy, University of Mississippi Medical Center

MENTORSHIP:

Doctoral students:

- 1. Qun Fang Ph.D. Student (Committee Chair) Assistant Professor, Qingdao University, China
- 2. Debra Watson Ph.D. Student (*Committee Chair*) ABD
- 3. Jeffery Simpson Ph.D. Student (Committee Member) Assistant Professor, University of West Florida
- 4. Yonjoong Ryuh Ph.D. Student (Committee Member) Assistant Professor, Sonoma State University
- 5. Sean Cochran Ph.D. Student at New Mexico State University (Committee Member)
- 6. Brandon Miller Ph.D. Student (Committee Member) Assistant Manager Athlete Servicing at Adidas

Master students:

- 1. Saira Talwar Master Student (Committee Chair)
- 2. Alana Turner Master Student (Committee Member)
- 3. Hannah Freeman Master Student (Committee Member)
- 4. Jian Xu Master Student (Committee Member)
- 5. Sachini Kodi Master Student (Committee Member)
- 6. Philip Sutton Master Student (Committee Member)
- 7. Troy Allred Master Student (Committee Member)
- 8. Jordan England Master Student (Committee Member)
- 9. Phenique Parker Master Student (Committee Member)
- 10. Nathan Majnaric Master Student (Committee Member)

Directed individual study (DIS):

Directed individual study (DIS) for 15 undergraduate students

PEER-REVIEW SERVICE:

Journals:

- 1. Geriatrics and Gerontology International
- 2. International Journal of Environmental Research and Public Health
- 3. Journal of Neuropsychology
- 4. Journal of Mindfulness
- 5. Journal of Clinical Medicine
- 6. International Journal of Therapy and Rehabilitation
- 7. Frontiers in Aging Neuroscience
- 8. Nutritional Neuroscience
- 9. British Medical Journal (Open)
- 10. Research Quarterly for Exercise and Sports
- 11. Pattern Recognition Letters

- 12. Laterality: Asymmetries of Body, Brain, and Cognition
- 13. The Journal of Sports Medicine and Physical Fitness
- 14. Therapeutic Advances in Neurological Disorders.

Conferences:

- 1. International Chinese Society for Physical Activities and Health (ICSPAH), 2017, 2019
- 2. International Graphonomics Society (IGS), 2017, 2018, 2022

Grants:

1. External grant reviewer for Auckland Medical Research Foundation in New Zealand, 2020

PROFESSIONAL SERVICE

Program committee: International Graphonomics Society (IGS)	2017, 2019, 2022
MSU Gerontology Committee	2023-
New undergraduate Division: Neuromechanics	2015-2017
New master's concentration: disability study	2015-2017
Academic culture committee	2015-2017
Public Relation Committee	2015-2017
COE Faculty Council	2020-2022

PROFESSIONAL AFFILIATIONS

International Graphonomics Society (IGS)	2017- present
North American Society for Psychology of Sport and Physical Activity (NASPSPA)	2015 - present
Society for Neuroscience (SfN)	2010, 2012
The International Society of Motor Control (ISMC)	2011
Gerontological Society of America (GSA)	2010

INVITED PRESENTATIONS

- 1. Ma, J. & **Pan, Z**. Supporting Well-Being and Resilience in Nurse Using Intelligent Immersive Virtual Reality. School of Nursing, University of Mississippi Medical Center, Jackson, MS, June 22th, 2022
- 2. Ma, J. & **Pan, Z**. Supporting Nurse Workforce Development in Future Senior Care Facility Using Intelligent Immersive Virtual Reality. School of Nursing, University of Mississippi Medical Center, Jackson, MS, April 25th, 2022
- 3. **Pan, Z.,** Chen, CC., Lamberth, J. & White, A. Bingocize®: An evidence-based health promotion program to improve the quality of life of Mississippi certified nursing facility residents. Mississippi State

- Department of Health (MSDH), Bureau of Injury and Violence Prevention. Jackson, MS, January 14th, 2021
- 4. **Pan, Z.,** Chen, CC., Lamberth, J., & Fang, Q. *Tai Chi improves the quality of life of older adults*. Carrington Nursing Center, Starkville, MS, 2019
- 5. **Pan, Z.**, Talwar, S., & Lamberth, J. *Tai Chi improves the quality of life of older adults*. Department of Physical Therapy, University of Mississippi Medical Center, Jackson, MS, March 24th, 2017
- 6. Talwar, S., **Pan, Z.**, Lamberth, J., & Chen, CC. *Tai Chi improves the quality of life of older adults*. Trinity Place Retirement Community, West Point, MS, March 3rd, 2017
- 7. Hickey, K. M., **Pan, Z.**, Simon, B. A., Thibodeaus, K. S., & Van Gemmert, A. W. A. The control of direction and amplitude are interdependent in bimanual coordination. *Quality Enhancement Plan (QEP)*, LSU, Baton Rouge, LA, March 10, 2014
- 8. **Pan, Z.** Taichi exercise for individuals with Parkinson's disease. "Movers and Shakers Gathering" (support group for Parkinson's disease), Baton Rouge, LA, June 23, 2012; October 26, 2013
- 9. **Pan, Z.** Taichi as an exercise protocol for individuals with Parkinson's disease. "National Parkinson's Disease Awareness Month" meeting, Baton Rouge, LA, April 27, 2013
- 10. Van Gemmert, A. W. A., Li, L., & **Pan, Z.** Taichi as an exercise protocol for older adults. Osher Lifelong Learning Institute, LSU, Baton Rouge, LA, April 27, 2011
- 11. Prejean, P., **Pan, Z.,** Harrison, J., Van Gemmert, A. W. A., Li, L., & Hondzinski, J. M. Long-term limited Taichi training enhances function in Parkinson's patients. *LSU Life Course and Aging's 8th Annual Community Partners Luncheon*. LSU, Baton Rouge, Louisiana, February 11, 2011