

## CURRICULUM VITAE

Yoonjung Park, PhD

### PERSONAL INFORMATION

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- Address (office) : Department of Health & Human Performance  
University of Houston  
3875 Holman St., Houston, TX 77204-6015

### EDUCATION

**Ph.D. Cardiovascular Exercise Physiology, Texas A&M University, 2003-2006**

Dissertation: The effects of aging and exercise training on the mechanisms of Angiotensin II-induced vasoconstriction in rat skeletal muscle arterioles (Advisor: Drs. Michael Delp and Robert Armstrong)

**M.A. Cardiac Exercise Physiology, University of Texas at Austin, 2000-2003**

Thesis: The role of nitric oxide synthase intolerance to hydrogen peroxide (H<sub>2</sub>O<sub>2</sub>) in the exercise trained rat heart (Advisor: Dr. Joseph Starnes)

**M.A. Clinical Exercise Physiology, Seoul National University, 1997-1999**

Thesis: The effects of exercise training on myocardial oxygen consumption (MVO<sub>2</sub>) and QTc interval in obese women (Advisor: Dr. Taewon Jun)

**B.A. Physical Education, Seoul National University, 1992-1997**

### POSITIONS AND EMPLOYMENT

- 2019-Present **Associate Professor with Tenure**, Department of Health & Human Performance, University of Houston, Houston TX
- 2013-2019 **Assistant Professor**, Department of Health & Human Performance, University of Houston, Houston TX
- 2010-2013 **Assistant Professor**, Department of Health, Exercise and Sport Sciences, Texas Tech University, Lubbock TX
- 2008-2010 **Postdoctoral Research Fellow**, Departments of Internal Medicine, Division of Cardiovascular Medicine, University of Missouri, Columbia, MO
- 2006-2007 **Postdoctoral Research Associate**, Departments of Veterinary Physiology & Pharmacology, Texas A&M University, College Station, TX
- 2003-2006 **Graduate Research Assistant**, Department of Health and Kinesiology, Texas A&M University, College Station, TX
- 2001-2003 **Graduate Teaching Assistant**, Department of Kinesiology/Biological Science, University of Texas, Austin, TX
- 1998-2000 **Exercise Specialist**, Sports and Health Medical Center, Asan Medical Center, Seoul, Korea
- 1997-1998 **Graduate Research Assistant**, Department of Physical Education, Seoul National University, Seoul, Korea

## **HONORS & AWARDS**

- 2014 - 2024 Provost Faculty Travel Award  
University of Houston
- 2009 Postdoctoral Association Travel Award,  
University of Missouri-Columbia
- 2009 The Pappenheimer Postdoctoral Travel Award,  
The Microcirculatory Society, Experimental Biology 2009
- 2007 Best Oral Presentation, 3rd Annual Research Retreat of the Cardiovascular Research  
Institute, Texas A&M Health Science Center
- 2006 Huffines Institute Travel Grant, Texas A&M University
- 2005 First Place Research Presentation Award, Doctoral Student Category,  
Texas Chapter of American College of Sports Medicine
- 2003 Regent Fellowship, Texas A&M University
- 2001 Tuition Fellowship, University of Texas at Austin
- 1992, 93, 95 Undergraduate Academic Scholarship, Seoul National University

## **MEMBERSHIP**

- American Physiological Society
- American Heart Association
- American College of Sports Medicine
- Korean United States Applied Physiology Society

## **PROFESSIONAL SERVICE**

### **• Editorial Board Member:**

- Journal of Obesity & Weight loss Therapy
- Asian Journal of Kinesiology

### **• Review Editor on the Editorial Board:**

- Frontiers in Physiology
- Frontiers in Sports and Active Living

### **• Invited Manuscript Reviewer:**

*Journal of Applied Physiology, Microcirculation, European Journal of Public Health, Kinesiology, International Journal of Exercise Science, Journal of Obesity & Weight loss Therapy, PLOS ONE, Journal of Exercise Nutrition and Biochemistry, Journal of Vascular Research, Scientific Reports, Food & Nutrition Research, Applied Physiology, Nutrition, and Metabolism, Frontiers in Physiology, Laboratory Investigation, Food & Function, Acta Physiologica, Nicotine & Tobacco Research*

## **TEACHING EXPERIENCE**

### **• Classes Taught (G): Graduate course**

#### University of Houston

|          |  |       |
|----------|--|-------|
| PEP 7397 | Cardiovascular Exercise Physiology (G) | 2022- |
| PEP 8699 | Doctoral Dissertation (G)              | 2018- |
| PEP 8350 | Candidacy Project Research (G)         | 2016- |
| PEP 7398 | Advanced Special Problem (G)           | 2017- |
| PEP 8303 | HHP Research Seminar (G)               | 2015- |
| PEP 8304 | Journal Club (G)                       | 2014- |

|          |  |       |
|----------|--|-------|
| PEP 6301 | Physiology of Exercise (G)             | 2014- |
| KIN 4310 | Measurement Tech. in Human Performance | 2023- |
| KIN 4397 | Cardiovascular Exercise Physiology     | 2015- |
| KIN 3306 | Physiology of Human Performance        | 2014- |

Texas Tech University

|          |                                |           |
|----------|--------------------------------|-----------|
| ESS 3305 | Exercise Physiology            | 2011-2013 |
| ESS 4368 | Applied Exercise Physiology    | 2010-2013 |
| ESS 5336 | Skeletal Muscle Physiology (G) | 2011-2013 |
| ESS 5337 | Cardiopulmonary Physiology (G) | 2011-2013 |

Texas A&M University

|           |                     |           |
|-----------|---------------------|-----------|
| KINE 106C | Tennis              | 2005-2006 |
| KINE 433  | Exercise Physiology | 2005      |

University of Texas at Austin

|          |                                     |           |
|----------|-------------------------------------|-----------|
| BIO 416K | Physiology and Functional Anatomy   | 2002-2003 |
| KIN 106C | Weight Training                     | 2001-2002 |
| KIN 310  | Physiological Basis of Conditioning | 2001      |

• **Mentoring:****- Postdoctoral Fellow**

- Dr. Aliasghar Zarezadehmehrizi (March 2019 – Current)
- Dr. Younson Son, PhD (February 2016 – June 2017)
- Dr. Eunkyung Park, PhD (January 2015 – September 2016)
- Dr. Kwangchan Kim, PhD (January 2015 – August 2016)

**- Committee Chair:**: University of Houston

- Junghoon Lee (PhD Student, September 2021 – Current)
  - : *Endocrinology & Metabolism Section Research Recognition Award, American Physiological Society, 2024*
  - : *Texas Public Education Grant, State of Texas, 2023*
  - : *Cullen Graduate Student Success Fellowship, University of Houston, 2023*
  - : *HHP Research Achievement Awards, University of Houston, 2023*
- Joonyoung Hong (PhD Student, September 2014 – December 2019)
  - : *ACSM Foundation Doctoral Student Research Grant, 2018-2019*
  - : *GenDepot Poster Award, KASE West Gulf Coast Regional Conference, 2017*
  - : *HHP Graduate Student Research Award, 2016*
- Jonghae Lee (PhD Student, September 2014 – December 2019)
  - : *American Physiological Society (APS) Abstract Travel Award, 2016*
  - : *GenDepot Poster Award, KASE West Gulf Coast Regional Conference, 2016*
  - : *GenDepot Poster Award, KASE West Gulf Coast Regional Conference, 2017*
- Priti Gupta (PhD Student, September 2014 – August 2015)

: Texas Tech

- Wanseok Lee (MS), Hyung Suk Yang (MS)

**- Committee:**: University of Houston

- Seth Rinehart (PhD) (March 2022 – Current)
- Charles Hodgman (PhD) (December 2021 – Current)
- Rod Azadan (PhD) (September 2019 – August 2022)
- Mahmoud Elzayat (PhD) (September 2020 – May 2022))
- Douglass M. Diak (PhD) (September 2016 – December 2020)
- Preteesh Leo (PhD) (September 2017 – August 2020)
- Rachel Graff Levine (PhD) (September 2017 – May 2020)
- Douglass M. Diak (MS) (September 2014 – May 2016)
- Mohammed Rahman (MS) (September 2014 – May 2016)
- Hawley Kunz (PhD) (September 2013 – May 2015)

: Texas Tech

- Jake Compton (PhD), Yu Lun Tai (PhD), Hui Chang (PhD), Rutika Panke (MS), Dmitri Okorokov (MS), Shelby Kloiber (MS), Kyrstin Eklund (MS)

**- Student Advising**: University of Houston - Undergraduates

- Bismah Shaikh (2022 – Current)
- Megan Rinn (2022 – Current)
- Maher Sino (2022 – Current)
- Aishwarya Juttu (2017 – 2020)
- Yesica Morales (2018 – 2019)
- Margaruite Nixon (2015 – 2018)
- Cameron Gutierrez (2015 – 2017)
- Mara Nisnisan (2015 – 2016)
- Elson Mendoza (2015 – 2017)
- Jonathan Perry (2014 – 2015)

: *Provost's Undergraduate Research Scholarship (PURS) Program (\$1,000), 2015*

: University of Missouri - Sewon Lee (PhD), Tessa Vellek (High School)**PUBLICATIONS**• **Peer-Reviewed Publications: (IF, Impact Factor)**

\* **Indicates a corresponding/First author**

\*\* **Indicates supervised graduate student/post-doc**

1. Kim JK, Baek KW, Kim SJ, \*\*Lee J, Johnston CA, \***Park Y.** Exercise-induced laminar blood flow maintains vascular function by enhanced endothelial homeostasis. *Exerc Sci.* 2024;33(2):234-242. DOI: <https://doi.org/10.15857/ksep.2024.002202024>
2. Duan C, Kim Y, \***Park Y.** Physical and psychological effects of speed-agility- quickness training, and sprint interval training on soccer players with lower extremity injuries. *Journal of Men's Health.* 2024 July; 20(7):59-69; doi:10.22514/jomh.2024.110 (IF= 0.7)
3. Su K, Kim Y, \***Park Y.** Prevalence of metabolic syndrome according to activity type and dietary habits in extremely low-income individuals. *Nutrients.* 2024 May16(11), 1677; <https://doi.org/10.3390/nu16111677> (IF= 6.4)

4. Lee HS, Lee DJ, Baek KW, Lee AR, **Park Y**, Kim JK. Effects of Pilates-Combined Training on the Improvement of Flexibility and Pain Relief in Elite Fencers. *Exerc Sci*. 2024;33(2):131-139. DOI: <https://doi.org/10.15857/ksep.2024.00129>
5. \*\*Hong J and \***Park Y**. Microvascular function and exercise training: Functional implication of nitric oxide signaling and ion channels. *Pulse*. 2024 Mar 12;12(1):27-33. doi: 10.1159/000538271. (IF= 2.2)
6. Liu W, Wang Z, Yu G, So HS, Kook SH, \***Park Y**, Kim SH (Co-corresponding author). Effects of Short-Term Exercise and Endurance Training on Skeletal Muscle Mitochondria Damage Induced by Particular Matter, Ambient PM2.5. *Frontiers in Public Health*. 2024 Feb 28;12:1302175. doi: 10.3389/fpubh.2024.1302175. (IF= 5.2)
7. Han ZX, **Park Y**, Kim SH. Effect of extracellular vesicles, including exercise mimetics, for improving bone loss caused by osteoblast endoplasmic reticulum stress. *Exercise Science*. 2024 Feb;33(1):36-45. DOI: <https://doi.org/10.15857/ksep.2024.00059>
8. Baek KW, Won JH, Xiang YY, Woo DK, **Park Y**, Kim JS. Exercise intensity impacts the improvement of metabolic dysfunction-associated steatotic liver disease via variations of monoacylglycerol O-acyltransferase 1 expression. *Clinics and Research in Hepatology and Gastroenterology*. 2024 Jan;48(1):102263. doi: 10.1016/j.clinre. 2023.102263. Epub 2023 Dec 6. (IF= 2.7)
9. Xiang YY, Baek KW, Won JH, **Park Y**, Kim JS. Effects of lifelong aerobic exercise on ferroptosis-related gene expressions in kidney of aged mice. *Exercise Science*. 2023;32(4):410-418. DOI: <https://doi.org/10.15857/ksep.2023.00549>
10. \*\*Lee J, \*\*Zarezadehmehrzi A, LaVoy EC, Markofski MM, \***Park Y**. Exercise training improves brachial artery endothelial function, but does not alter inflammatory biomarkers in patients with peripheral artery disease: A systematic review and meta-analysis. *J Cardiovasc Transl Res*. 2023. Oct 23. doi: 10.1007/s12265-023-10451-0. (IF= 4.13)
11. Aminizadeh S, \*\*Lee J, \*\*Zarezadehmehrzi A, Najafipour H, Ahmadi MA, Moflehi D, Rashidzadeh H, \***Park Y**. MitoQ Supplementation During Vigorous Training Improves Reactive Oxygen Species, Glutathione Peroxidase, and miRNAs Regulating Vascular Inflammation in Cyclists. *Braz. arch. biol. technol*. 66. 2023. <https://doi.org/10.1590/1678-4324-2023220914> (IF=1.18)
12. Kim H, Lee K, Lee YH, **Park Y**, Park Y, Yu Y, Park J, Noh S. The Effectiveness of a Mobile Phone-Based Physical Activity Program for Treating Depression, Stress, Psychological Well-Being, and Quality of Life Among Adults: Quantitative Study. *JMIR Mhealth Uhealth*. 2023 Jun 26;11:e46286. doi: 10.2196/46286. (IF= 4.78)
13. Symons TB, Park J, Kim JH, Kwon EH, Delacruz J, \*\*Lee J, **Park Y**, Chung E, Lee S. Attenuation of skeletal muscle atrophy via acupuncture, electro-acupuncture, and electrical stimulation. *Integr Med Res*. 2023 Jun;12(2):100949. doi: 10.1016/j.imr.2023.100949. Epub 2023 (IF= 4.47)
14. \*\*Lee J, \***Park Y**. Vascular Adaptations to Obesity and Exercise: Inflammation and Endothelial Mesenchymal Transition Associated Putative Mechanisms. *International Journal of Human Movement Science*. 2022. Dec;16(3):79-89. DOI: 10.23949/ijhms.2022.12.16.3
15. \***Park Y**. New Perspective of the Beneficial Effect of Exercise on Alzheimer's Disease: Vascular Theory. *Asian J Kinesiol*. 2022; 24(4): 1-2 · DOI: [doi.org/10.15758/ajk.2022.24.4.1](https://doi.org/10.15758/ajk.2022.24.4.1) (Editorial)
16. Lee MY, **Park Y**, Seo DI. Effect of a 16-Week Yoga Program on Cobb's Angle in Female Patients with Scoliosis. *Asian J Kinesiol*. 2022; 24(3): 39-45 · DOI: [doi.org/10.15758/ajk.2022.24.3.39](https://doi.org/10.15758/ajk.2022.24.3.39)
17. Graff RM, Jennings K, LaVoy EC, Warren VE, Macdonald BW, **Park Y**, Markofski MM. T-cell counts in response to acute cardiorespiratory or resistance exercise in physically active or physically inactive older adults: A randomized crossover. *Journal of Applied Physiology*. 2022 Jul 1;133(1):119-129. doi: 10.1152/jappphysiol.00301.2021. Epub 2022 May 26 (IF= 3.06)
18. Liang R, Shen X, Wang F, Wang X, DesJarlais A, Syed A, Saba R, Tan Z, Yu F, Ji X, Shrestha

- S, Ren Y, Yang J, **Park Y**, Schwartz RJ, Soibam B, Stewart MD, Kumar A, Liu Y. H19X-encoded miR-322(424)/-503 regulates muscle mass by targeting translation initiation factors. *J Cachexia Sarcopenia Muscle*. 2021. Oct 26. doi: 10.1002/jcsm.12827 (IF= 12.51)
19. \*\*Hong J, \*\*Park E, \*\*Lee J, Lee Y, Rooney BR, \***Park Y**. Exercise training mitigates coronary vascular dysfunction in atherosclerosis: ER stress and UCP2-associated mechanisms. *Sci Rep*. 2021 Jul 29;11(1):15449. doi: 10.1038/s41598-021-94944-5. (IF=4.379)
  20. \*\*Zarezadehmehrizi A, \*\*Hong J, \*\*Lee J, Rajabi H, Gharakhanlu R, Naghdi N, Azimi M, \***Park Y**. Exercise training ameliorates cognitive dysfunction in amyloid beta-injected rat model: possible mechanisms of Angiostatin/VEGF signaling. *Metab Brain Dis*. 2021 May 18. doi: 10.1007/s11011-021-00751-2. (IF= 3.584)
  21. \*\*Lee J, \*\*Hong J, Umetani M, LaVoy E, Kim J, \***Park Y**. Vascular protection by exercise in obesity: inflammasome-associated mechanisms. *Med Sci Sports Exerc*. 2020. Dec;52(12):2538-2545. doi: 10.1249/MSS.0000000000002419 (IF= 5.411)
  22. \*\*Hong J, Hong SK, \*\*Lee J, Park JY, Eriksen JL, Rooney BV, and \***Park Y**. Exercise training ameliorates cerebrovascular dysfunction in a murine model of Alzheimer's disease: role of the P2Y2 receptor and endoplasmic reticulum stress. *Am J Physiol Heart Circ Physiol*. 2020. Jun 1;318(6):H1559-H1569. doi: 10.1152/ajpheart.00129.2020. (IF= 4.733)
  23. Kwon I, Kim JS, Shin CH, **Park Y**, Kim JH. Associations Between Skeletal Muscle Mass, Grip Strength, and Physical and Cognitive Functions in Elderly Women: Effect of Exercise with Resistive Theraband. *J Exerc Nutrition Biochem*. 2019 Sep 30;23(3):50-55
  24. Jung J, Seo DI, **Park Y**, So WY. Echocardiography evaluation of left ventricular diastolic function in elderly women with metabolic syndrome. *Open Medicine*. 2019 Aug. doi: 10.1515/med-2019-0073 (IF= 2.199)
  25. \*\* Son Y, Kim K, Jeon S, Kang M, Lee S, \***Park Y**. Response to: Comment on "Effect of Exercise Intervention on Flow-Mediated Dilatation in Overweight and Obese Adults: Meta-Analysis" *Int J Vasc Med*. 2019 Feb 5;2019:2470581. doi: 10.1155/2019/2470581
  26. \*\* Lee J, Lee Y, LaVoy E, Umetani M, \*\*Hong J, \***Park Y**. Physical Activity Protects NLRP3 inflammasome-induced Vascular Dysfunction in Obesity. *Physiol. Rep*. 2018. Jun;6(12):e13738. doi: 10.14814/phy2.13738.
  27. \*\*Hong J, \*\*Kim K, \*\*Park E, \*\*Lee J, Markofski MR, Marrelli SP, and \***Park Y**. Exercise ameliorates endoplasmic reticulum stress-mediated vascular dysfunction in atherosclerotic mesenteric arteries. *Sci Rep*. 2018 8:7938 | DOI:10.1038/s41598-018-26188-9. 2018 (IF=4.379)
  28. \*\*Lee J, Lee R, Hwang MH, Hamilton MT, \***Park Y**. The effects of exercise on vascular endothelial function in type 2 diabetes: A Systematic Review and Meta-analysis. *Diabetol Metab Syndr*. 2018 Mar 6;10:15. doi: 10.1186/s13098-018-0316-7. 2018 (IF= 2.6)
  29. \***Park Y**. Weight loss and health benefit; Bariatric Surgery. Editorial. *J Obes Weight Loss Ther*. 2018, 8:1 DOI: 10.4172/2165-7904.1000e122. 2018 (IF=1.46)
  30. \*\*Lee J, Lee S, Zhang H, Hill MA, Zhang C, \***Park Y**. Interaction of IL-6 and TNF- $\alpha$  contributes to endothelial dysfunction in type 2 diabetic mice heart. *PLoS ONE*. 2017 Nov 2;12(11):e0187189. doi: 10.1371/journal.pone.0187189. 2017 (IF= 3.54)
  31. \*\* Son Y, Kim K, Jeon S, Kang M, Lee S, \***Park Y**. Effect of exercise intervention on flow-mediated dilatation in overweight and obese adults: Meta-analysis. *Int J Vasc Med*. 2017;7532702. doi: 10.1155/2017/7532702. 2017 (IF= 3.19)
  32. So WY, Lee SY, **Park Y**, Seo DI. Effects of 4 weeks of horseback riding on anxiety, depression, and self-esteem in children with attention deficit hyperactivity disorder. *J Mens Health*. 2017–13(2):e1-e7; September 28, 2017
  33. \*\* Hong J, \*\*Kim K, Kim J, \***Park Y**. The role of endoplasmic reticulum stress in cardiovascular disease and exercise. *Int J Vasc Med*. 2017:2049217. doi: 10.1155/2017/2049217. 2017 (IF= 3.19)
  34. Chen X, Zhang H, Hill MA, Zhang C, \***Park Y**. Regulation of coronary endothelial function affected by feedback among TNF- $\alpha$ , LOX-1 and adiponectin in ApoE knockout mice. *J Vasc*

- Res. 52(6):372-82. 2016 (IF=2.90)
35. Kim JH and **\*Park Y**. The combined effects of phytochemicals and exercise on fatty acid oxidation. *J Exerc Nutrition Biochem*. 20(4):20-26. 2016
  36. Ghosh P, Behnke BJ, Stabley JN, Kilar CR, **Park Y**, Muller-Delp JM, Alwood JS, Shirazi-Fard Y, Schreurs NS, Globus RK, Delp MD. Effects of high-LET radiation and hindlimb unloading on skeletal muscle resistance artery vasomotor properties in mice. *Radiation Research*. Mar;185(3):257-66. 2016 (IF=2.91)
  37. Kunz H, Bishop NC, Spielmann G, Pistillo M, Reed J, Ograjsek T, **Park Y**, Mehta SK, Pierson DL, Simpson RJ. Fitness level impacts salivary antimicrobial protein responses to a single bout of cycling exercise. *Eur J Appl Physiol*. 115(5):1015-27. 2015 (IF=2.29)
  38. **Park Y**, Prisby RB, Lesniewski LA, Donato AJ, Delp MD. Effects of aging and exercise training on Angiotensin II-induced vasoconstriction of rat skeletal muscle arterioles, *J Appl Physiol*., Oct;113(7):1091-100. 2012 (IF= 4.232)
  39. **\*Park Y**, Booth FW, Lee S, Laye MJ, and Zhang C. Physical activity opposes coronary vascular dysfunction induced during high fat feeding in mice. *J Physiol (Lond)*. Sep;1;590(Pt 17):4255-68. 2012 (IF= 5.182)
  40. Lee S, **Park Y**, Zhang C. exercise training prevents coronary endothelial dysfunction in type 2 diabetic mice. *Am. J. Biomed. Sci* 3(4): 241-252. 2011 (IF=5.74)
  41. Lee S, **Park Y**, Dellsperger KC, Zhang C. Exercise training improves endothelial function via adiponectin-dependent and independent pathways in type 2 diabetic mice. *Am J Physiol Heart Circ Physiol*. Aug;301(2):H306-14. 2011 (IF= 3.880)
  42. Lee S, **Park Y**, Zuidema MY, Hannink M, Zhang, C. Effects of interventions on oxidative stress and Inflammation of cardiovascular diseases. *World Journal of Cardiology* (invited review), January 26; 3(1): 18-24. 2011
  43. **Park Y**, Yang J, Zhang H, Chen X and Zhang C. Role of PAR2 in the regulation of TNF- $\alpha$ -induced endothelial dysfunction in type 2 diabetic mice. *Basic Res Cardiol*. Jan;106(1):111-23. 2011 (IF= 11.981)
  44. Zhang H, **Park Y**, Liu Y and Zhang C. Coronary and aortic endothelial function affected by feedback between adiponectin and TNF- $\alpha$  in type 2 diabetic mice. *Arterioscler Thromb Vasc Biol*. Nov;30(11):2156-63. 2010 (IF= 8.311)
  45. Yang J, **Park Y**, Zhang H, Gao X, Wilson E, Zimmer W, Abbott L and Zhang C. Role of MCP-1 in tumor necrosis factor alpha-induced endothelial dysfunction in type 2 diabetic mice. *Am J Physiol Heart Circ Physiol*. 297(4):H1208-16. 2009 (IF= 3.880)
  46. Yang J<sup>+</sup>, **Park Y**<sup>+</sup>, Zhang H, Xu X, Laine GA, Dellsperger KC and Zhang C (**\*Co-first authors**). Feed-forward signaling of TNF- $\alpha$  and NF $\kappa$ B via IKK $\beta$  pathway induces insulin resistance and coronary arteriolar dysfunction in type 2 diabetic mice. *Am J Physiol Heart Circ Physiol*. 296(6):H1850-8, 2009 (IF= 3.880)
  47. **Park Y**, Wu J, Zhang H, Wang Y and Zhang C. Vascular dysfunction in type 2 diabetes: emerging targets for therapy. *Expert Rev Cardiovasc Ther*. Mar;7(3):209-13, 2009 (IF= 2.353)
  48. Zhang H, **Park Y**, Wu J, Chen X, Lee S, Yang J, Dellsperger KC and Zhang C. The role of TNF- $\alpha$  in vascular dysfunction. *Clin Sci (Lond)*. 116 (3): 219-230, 2009 (IF= 3.4.317)
  49. **Park Y**, Capobianco S, Gao X, Falck JR, Dellsperger KC and Zhang C. Role of EDHF in type 2 diabetes-induced endothelial dysfunction. *Am J Physiol Heart Circ Physiol*. 295(5):H1982-8, 2008 (IF= 3.880)
  50. Zhang C, **Park Y**, Picchi A and Potter BJ. Maturation-induced endothelial dysfunction via vascular inflammation in diabetic mice. *Basic Res Cardiol*. 103(5):407-16. 2008 (IF= 7.221)
  51. Gao X, **Park Y**, Capobianco S, Yang J, Zhang H, Picchi A and Zhang C. Role of TNF alpha in prediabetic metabolic syndrome induced endothelial dysfunction. 8<sup>th</sup> World Congress for MICROCIRCULATION (Ed. Julian H Lombard). MEDIMOND S.r.l., International Proceedings., H815R9145: P179-185. 2007

52. Saitoh S, Kiyooka T, Rogers PA, Dick GM, Rocic P, Swafford A, Viswanathan C, **Park Y**, Zhang C, Chilian WM. Redox-dependent coronary metabolic dilation. *Am J Physiol Heart Circ Physiol*. 293(6):H3720-5, 2007 (IF= 3.880)
53. Gao X, Xu X, Belmadani S, **Park Y**, Tang Z, Feldman AM, Chilian WM and Zhang C. TNF- $\alpha$  contributes to endothelial dysfunction by up-regulation arginase in I/R injury. *Arterioscler Thromb Vasc Biol*. 27(6):1269-75, 2007. (IF= 7.221)
54. Starnes JW, Taylor RP, **Park Y**. Exercise improves postischemic function in aging hearts. *Am J Physiol Heart Circ Physiol*. 285(1):H347-H351, 2003 (IF= 3.880)
55. **Park YJ**, Lee HJ, Kim YK, Jin YS. The effects of exercise training on MVO<sub>2</sub> and QTc interval in obese women. *Korean J. of Sports Medicine*. 17(1) 188-196, 1999 (In Korean)
56. Kang HJ, Chung ST, **Park YJ**, Kim MH, Jin YS. The effect of physical exercise on VO<sub>2</sub> max and blood lipid profile in NIDDM. *Korean J. of Sports Medicine*. 16(2): 313-319, 1998 (In Korean)

#### • Manuscripts Under Review:

1. Chu H, Choi Y, Kim Y, **\*Park Y**. Comparison of the effectiveness of long-term exercise-based cardiac rehabilitation according to emergency room and outpatient hospitalization routes for coronary artery disease. *Reviews in Cardiovascular Medicine* – Submitted (IF= 2.9)
2. Liu W, Kieu TT, Wang Z, Sim HJ, Lee JC, **Park Y**, Kook SH, Kim SH. PrPC glycoprotein is indispensable for maintenance of skeletal muscle homeostasis during aging. *Nature Aging* – Submitted (IF= 16.6)
3. Mockler S, Yun-Ju Fang YJ, Jia UTA, Kim JH, Park J, **Park Y**, Chicco AJ, Umeda M, Lee S, Chung E. Acupuncture Treatment Preserves Skeletal Muscle Mass and Improves Mitochondrial Function in a Rat Model of Disuse Atrophy. *Journal of Applied Physiology* – Submitted (IF= 3.5)
4. Liu W, Wang Z, Kim JC, **\*Park Y**, Kim SH (Co-corresponding author). Effects of intermittent fasting during long-term endurance exercise on the development of the musculoskeletal system in growing rats. *JSSM (Journal of Sports Science and Medicine)* – Submitted (IF= 3.2)
5. Chu H, Choi Y, Kim Y, **\*Park Y**. Long-term comparison of functional recovery based on emergency and late repair in men with Achilles tendon rupture. *Isokinetics and Exercise Science* – Submitted (IF= 3.2)
6. **\*\*Lee J and \*Park Y**. Exercise training-induced brachial artery endothelial function improvement in coronary artery disease patients and its association with blood lipids: A systemic review and meta-analysis. *Am J Physiol Heart Circ Physiol*. – Submitted (IF= 4.0)

#### • Book Chapter

ACSM's Resources for Clinical Exercise Physiology (Korean language edition) – Translation of the English language edition, 'Chapter 18. Chronic Fatigue Syndrome (p.266-p.283)', Young Moon Publishing, 2007

#### • Abstract

1. Kim JH, Park J, Kwon EH, Symons TB, Delacruz J, **\*\*Lee J, Park Y**, Chung E, Lee S. Effects of Acupuncture, Electroacupuncture, and Electrostimulation Treatments on Plantaris by Casting Model. *International Journal of Exercise Science: Conference Proceedings*.2(14), 2022
2. **\*\* Lee J, \*\*Hong J, Umetani M, \*\*Aishwarya J, \*Park Y**. Exercise-mediated Wall Shear Stress Attenuates NLRP3 Inflammasome-induced Endothelial Dysfunction in Obesity. *FASEB*. Vol 34(S1). 2020. doi.org/10.1096/fasebj.2020.34.s1.03184
3. **\*\*Hong J, Hong SG, \*\*Lee J, Park JY, Eriksen J, \*Park Y**. Exercise training ameliorates cerebrovascular dysfunction in Alzheimer's Disease: a role of P2Y<sub>2</sub> receptor and endoplasmic reticulum stress. *Medicine & Science in Sports & Exercise*. 52(7S):894, July 2020.



4. **\*Park Y**, \*\*Hong J, \*\*Park E, \*\*Lee J, Lee Y. The Protective Mechanism of Exercise Training for Coronary Vascular Dysfunction in Atherosclerosis: ER Stress and UCP-2. *Medicine & Science in Sports & Exercise*. 52(7S):236-237, July 2020.
5. Hong J, Park E, \*\*Lee J, **\*Park Y**. Exercise training ameliorates coronary endothelial dysfunction in atherosclerosis through endoplasmic reticulum stress and uncoupling protein-2. *FASEB*. Vol 33(S1). 2019
6. \*\*Lee J, Hong J, Umetani M, LaVoy E, **\*Park Y**. Protective Mechanisms of Physical Activity in Vascular Dysfunction in High-fat Diet-induced Obesity via Attenuation of NLRP3 Inflammasome. *Circulation*. Vol 138(S1). 2018
7. Wang Y, Zhang H, Zhang J, Dellsperger KD, Potter BJ, Ungvari Z, Cao JM, Zhang C, **\*Park Y**. Bariatric Surgery Reverses Vascular Pathology in Mice with Morbid Obesity and Type 2 Diabetes. *Circulation Research*. 2018;123:A515. 2018
8. \*\*Lee J, Lee R, Hwang MH, Hamilton MT, **\*Park Y**. The effects of exercise on vascular endothelial function and glycemic control in type 2 diabetes: a systematic review and meta-analysis. *Medicine & Science in Sports & Exercise*. 50 (5S), 541-542. 2018
9. \*\*Lee J, Hong J, Umetani M, LaVoy E, **\*Park Y**. Protective Mechanisms of Physical Activity in Vascular Dysfunction in High-fat Diet-induced Obesity via Attenuation of NLRP3 Inflammasome Activation in Mouse Aorta. *FASEB J*. Vol 32(S1). 2018
10. \*\*Hong J, Lee J, Eriksen J, **\*Park Y**. The effect of exercise on purinergic receptor-mediated cerebrovascular dysfunction in Alzheimer's disease. *FASEB J*. 32 (1)\_supplement. 2018
11. \*\*Hong J, Kim K, Park E, Lee J, **\*Park Y**. Exercise ameliorates endoplasmic reticulum stress-mediated vascular dysfunction in atherosclerotic mesenteric arteries. *FASEB J*. Vol. 31, No. 1\_supplement. 2017
12. \*\*Lee J, Lee Y, Kim K, Park E, Hong J, **\*Park Y**. Physical activity attenuates NLRP3 inflammasome activation-induced vascular dysfunction in obese mice heart. *Medicine & Science in Sports & Exercise*. 49(5S):808. 2017
13. \*\*Park E, Yi K, Jin Y, Park CH, Yoo S, Yoo J, **\*Park Y**. Effect of multidirectional and unidirectional exercises on brain blood flow activation in chronic stroke patients. *Medicine & Science in Sports & Exercise*. 49(5S):30. 2017
14. \*\*Son Y, Kim K, Jeon S, Kang M, **\*Park Y**. Exercise and vascular function in overweight and obese adults: a meta-analysis. *Medicine & Science in Sports & Exercise*. 49(5S):815. 2017
15. \*\*Hong J, Kim K, Park E, Lee J, **\*Park Y**. The role of exercise in endoplasmic reticulum stress-associated vascular dysfunction in mesentery arteries in atherosclerosis. *Circulation*. Volume 134, Issue Suppl 1. 2016
16. Lee W, **\*Park Y**, Chung E. The Akt/FoxO/Atrogin-1 signaling pathways underlying cardiac regression after detraining in a mouse heart. *MSSE*. 2014
17. Lee S, **\*Park Y**, Y. Zuidema MZ, Laughlin MH, Bowles DK, Baines C, Hannink M, Hil MA, Kevin KC, and Zhang C. Exercise training improves coronary microvascular arteriolar function in familial hypercholesterolemia porcine model via Nrf2. *FASEB J*. 26:1138.24. 2012
18. Behnke BJ, Dominguez, II, JM, **\*Park Y**, and Delp MD, Angiotensin II-induced vasoconstriction in skeletal muscle: effects of aging and TNF- $\alpha$ . *FASEB J*. 24:775.2. 2010
19. **\*Park Y**, Wang Y, Lee S, and Zhang C. Bariatric surgery treats morbid obesity and type 2 diabetes: mechanisms of improved endothelial function. *Circulation*. 120: S444. 2009
20. **\*Park Y**, Lee S, and Zhang C. IL-6 and TNF- $\alpha$  contribute to endothelial dysfunction in type 2 diabetes. *Microcirculation*. 2009
21. Zhang H, **\*Park Y**, and Zhang C. The interactive balance between adiponectin and tnf- $\alpha$  in the regulation of aortic and coronary endothelial function in type 2 diabetic mice. *Arterioscler Thromb Vasc Bol*. Vol 29, No 7: 67. 2009

22. **Park Y**, Lee S, Booth FW, Laye MJ, and Zhang C. Physical activity prevents endothelial dysfunction induced by sedentary life style and high fat diet in murine coronary microcirculation. *FASEB J.* 23:952.4. 2009
23. Lee S, **Park Y**, and Zhang C. Exercise training improves endothelial dysfunction in type 2 diabetes. *FASEB J.* 23:594.4. 2009
24. **Park Y**, Klaahsen DL and Zhang C. Role of PAR2 in type 2 diabetes-induced endothelial dysfunction. *FASEB J.* 22:1226.30. 2008
25. Zhang C, **Park Y**, Zhang H, Chen X, and Fay WP. Endothelial dilation in ApoE null mice: an interactive balance among TNF- $\alpha$ , adiponectin and LOX-1. *Circulation.* 118:S\_504 - S\_505. 2008
26. Yang J, **Park Y**, and Zhang C. Effect of sodium salicylate on insulin resistance and endothelial dysfunction of coronary arterioles in diabetic mice. *FASEB J.* 22:1b45. 2008
27. Klaahsen DL, Zhang H, **Park Y**, Lee S, Hardin C and Zhang C. Extra virgin olive oil and vascular health. *The FASEB J.* 22:1b63. 2008
28. **Park Y**, X Gao, S Capobianco, Y Gao, WM Chilian and C Zhang. Compensatory role of EDHF in type 2 diabetes-induced endothelial dysfunction. *FASEB J.* 21:1b454. 2007
29. **Park Y**, Donato AJ, Prisyby RD, and Delp MD. Mechanism of angiotensin II vasoreactivity in rat skeletal muscle arterioles: Effect of aging and exercise training. *FASEB J.* 20:A285. 2006
30. Starnes JW, **Park Y**, Mathis BJ, Harris MB. Exercise training increases oxidative stress-induced mechanical dysfunction in rat hearts: Role of endothelial nitric oxide synthase (eNOS). *Physiologist.* 47:4. 2004

#### **PROFESSIONAL PRESENTATION (Poster)**

1. **\*Park Y**, \*\*Lee J, \*\*Lee J. Physical activity alleviates obesity-associated mesenteric arterial endothelial dysfunction: Role of adiponectin receptor. *APS Summit 2024 (American Physiological Society Annual Meeting)*. Long Beach, CA. April 2024
2. \*\*Lee J, \*\*Lee J, **\*Park Y**. Physical activity mitigates serotonin and oxidative stress-associated mesenteric arterial endothelial dysfunction in obesity. *APS Summit 2024 (American Physiological Society Annual Meeting)*. Long Beach, CA. April 2024
3. **\*Park Y**, \*\*Rinn MN, \*\*Lee J. and Resistance training improves vascular endothelial function and blood pressure in patients with cardiovascular diseases: A systematic review and meta-analysis. *American College of Sports Medicine (ACSM) Annual Meeting*. Boston, MA. May 2024
4. \*\*Lee J, Hong J, **\*Park Y** Exercise training mitigated aortic dysfunction in mice with Alzheimer's disease: Its underlying mechanisms. *American College of Sports Medicine (ACSM) Annual Meeting*. Boston, MA. May 2024
5. \*\*Lee J and **\*Park Y**. Association between Exercise-induced Endothelial Function Improvement and Lipids Profiles in Coronary Artery Disease: A Meta-Analysis. *American College of Sports Medicine (ACSM) Annual Meeting*. San Diego, CA. May 2022
6. Jia UA, Mockler S, Mahboob A, Perez Y, Kim JH, Park J, **Park Y**, Lee S, Chicco A, Eunhee Chung E. Acupuncture Attenuates Muscle Atrophy And Improves Soleus Fatty Acid Oxidation Efficiency Following Casting In Rats. *American College of Sports Medicine (ACSM) Annual Meeting*. San Diego, CA. May 2022
7. Park J, Kim JH, Symons TB, Kwon EH, Delacruz J, **Park Y**, \*\*Lee J, Chung E, Lee S. Acupuncture, Electroacupuncture, and Electrostimulation Treatments on Atrophied Gastrocnemius by Casting Model. *American College of Sports Medicine (ACSM) Annual Meeting*. San Diego, CA. May 2022
8. Kim JH, Park J, Kwon EH, Symons TB, Delacruz J, \*\*Lee J, **Park Y**, Chung E, Lee S. Effects of Acupuncture, Electroacupuncture, and Electrostimulation Treatments on Plantaris by Casting Model. *American College of Sports Medicine (ACSM) Annual Meeting*. San Diego, CA. May 2022

9. **Park Y**, Aminizadeh S, \*\*Lee J, \*\*Zarezadehmehrizi A, Najafipour H, Amiri-Deh Ahmadi M, Moflehi D, Rashidzadeh H. MitoQ supplementation improves oxygen uptake kinetic by reduced reactive oxygen species levels and altered expression of miR-155 and miR-181b. *Experimental Biology 2022 (American Physiological Society Annual Meeting)*. Philadelphia, PA. April 2022
10. \*\*Lee J, \*\*Zarezadehmehrizi A, \*\*Hong J, \*\*Lee J, \***Park Y**. 'Exercise Training Alleviates Alzheimer's Disease-Associated Aortic Endothelial Dysfunction. *Experimental Biology 2022 (American Physiological Society Annual Meeting)*. Philadelphia, PA. April 2022
11. Juttu A, \*\*Lee J, \***Park Y**. Laminar shear stress attenuates NLRP3 inflammasome signaling in palmitate stimulated endothelial cells. *The Gulf Coast Consortia Single Cell Omics Symposium*. Houston, TX. October 2020 (Virtually Presented due to COVID-19)
12. \*\*Hong J, Hong SG, \*\*Lee J, Park JY, Eriksen J, \***Park Y**. Exercise training ameliorates cerebrovascular dysfunction in Alzheimer's Disease: a role of P2Y2 receptor and endoplasmic reticulum stress. *American College of Sports Medicine (ACSM) Annual Meeting*. San Francisco, CA. May 2020 (Virtually Presented due to COVID-19)
13. \***Park Y**, \*\*Hong J, \*\*Park E, \*\*Lee J, Lee Y. The Protective Mechanism of Exercise Training for Coronary Vascular Dysfunction in Atherosclerosis: ER Stress and UCP-2. *American College of Sports Medicine (ACSM) Annual Meeting*. San Francisco, CA. May 2020 (Virtually Presented due to COVID-19)
14. \*\* Lee J, \*\*Hong J, Umetani M, \*\*Aishwarya J, \***Park Y**. Exercise-mediated Wall Shear Stress Attenuates NLRP3 Inflammasome-induced Endothelial Dysfunction in Obesity. *Experimental Biology 2020 (American Physiological Society Annual Meeting)*. San Diego, CA. April 2020 (Virtually Presented due to COVID-19)
15. \*\* Lee J, \*\*Hong J, Umetani M, LaVoy E, \***Park Y**. Exercise decreases endothelial dysfunction in obesity through attenuating NLRP3 inflammasome *Korean-American Bio-Medical Symposium (KABMS) Annual Meeting*. Houston, TX. November 2019
16. \*\* Lee J, Hong J, Umetani M, LaVoy E, \***Park Y**. Physical Activity Ameliorates Endothelial NLRP3 Inflammasome in Obese Mice Aorta. *American College of Sports Medicine (ACSM) Annual Meeting*. Orlando, FL. May 2019
17. \*\*Hong J, Park E, Lee J, and \***Park Y**. Exercise training ameliorates coronary endothelial dysfunction in atherosclerosis through endoplasmic reticulum stress and uncoupling protein-2. *Experimental Biology*. Orlando, FL. April 2019
18. \*\* Lee J, Hong J, Umetani M, LaVoy E, \***Park Y**. Protective Mechanisms of Physical Activity for Vascular Dysfunction in High-Fat Diet-Induced Obesity via Attenuated NLRP3 Inflammasome *American Heart Association (AHA) Scientific Session*. Chicago, IL. November 2018
19. Wang Y, Zhang H, Zhang J, Dellsperger KD, Potter BJ, Ungvari Z, Cao JM, Zhang C, \***Park Y**. Bariatric Surgery Reverses Vascular Pathology in Mice with Morbid Obesity and Type 2 Diabetes. *American Heart Association BCVS Scientific Sessions*, San Antonio, TX. July 2018
20. \*\*Lee J, Lee R, Hwang MH, Hamilton MT, \***Park Y**. The effects of Exercise on Vascular Endothelial Function and Glycemic Control in Type 2 Diabetes: A Systematic Review and Meta-analysis. *American College of Sports Medicine (ACSM) Annual Meeting*. Minneapolis, MN. May 2018
21. \*\*Hong J, Lee J, Eriksen J, \***Park Y**. The Effect of Exercise on Purinergic Receptor-Mediated Cerebrovascular Dysfunction in Alzheimer's Disease. *Experimental Biology (American Physiological Society Annual Meeting)*. San Diego, CA. April 2018
22. \*\*Lee J, Hong J, Umetani M, LaVoy E, \***Park Y**. Protective Mechanisms of Physical Activity in Vascular Dysfunction in High Fat Diet-Induced Obesity Via Attenuation of NLRP3 Inflammasome Activation in Mouse Aorta. *Experimental Biology (American Physiological Society Annual Meeting)*. San Diego, CA. April 2018
23. \*\*Hong J, Kim K, Park E, Lee J, \***Park Y**. Exercise Ameliorates Endoplasmic Reticulum Stress-Mediated Vascular Dysfunction in Atherosclerotic Mesenteric Arteries. *Korean-American Scientists & Engineers Association South Texas Chapter*. Houston, TX. November 2017

24. \*\*Lee J, Lee Y, Kim K, Park E, Hong J, \***Park Y.** Physical Activity Attenuates NLRP3 Inflammasome Activation-induced Coronary Vascular Dysfunction in High-fat Diet Feeding Mice. *2017 West Gulf Coast Regional Conference held by KSEA-KABMS-KOEA.* Houston, TX. November 2017
25. \*\*Lee J, Lee Y, Kim K, Park E, Hong J, \***Park Y.** Physical Activity Attenuates NLRP3 Inflammasome Activation-induced Vascular Dysfunction in Obese Mice Heart. *American College of Sports Medicine (ACSM) Annual Meeting.* Denver, CO. May 2017
26. \*\*Park E, Yi K, Jin Y, Park CH, Yoo S, Yoo J, \***Park Y.** Effect of Multidirectional and Unidirectional Exercises On Brain Blood Flow Activation In Chronic Stroke Patients. *American College of Sports Medicine (ACSM) Annual Meeting.* Denver, CO. May 2017
27. \*\*Park E, Yi K, Jin Y, Park CH, Yoo S, Yoo J, \***Park Y.** Effect of Multidirectional and Unidirectional Exercises on Brain Blood Flow Activation in Chronic Stroke Patients. *16th Annual Meeting of Korean United Applied Physiology Society (KUSAPS).* Denver, CO. May 2017 – **Selected as the KUSAPS Research Award**
28. \*\*Son Y, Kim K, Jeon S, Kang M, \***Park Y.** Exercise and Vascular Function in Overweight and Obese Adults: A Meta-analysis. *American College of Sports Medicine (ACSM) Annual Meeting.* Denver, CO. May 2017
29. \*\*Hong J, Kim K, Park E, Lee J, \***Park Y.** Exercise Ameliorates Endoplasmic Reticulum Stress-Mediated Vascular Dysfunction in Atherosclerotic Mesenteric Arteries. *Experimental Biology (American Physiological Society Annual Meeting).* Chicago, IL. April 2017
30. \*\*Hong J, Kim K, Park E, Lee J, \***Park Y.** The Role of Exercise in Endoplasmic Reticulum Stress-Associated Vascular Dysfunction in Mesentery Arteries in Atherosclerosis. *American Heart Association (AHA) Scientific Session.* New Orleans, LA. November 2016
31. \*\*Lee J, Lee Y, Kim K, Park E, Hong J, \***Park Y.** Physical Activity Attenuates NLRP3 Inflammasome Activation-induced Vascular Dysfunction in Obese Mice Heart. *Korean-American Scientists and Engineers Association (KASEA) West Gulf Coast Regional Conference.* Houston, TX. November 2016
32. \*\*Lee J, Lee S, and Zhang C, \***Park Y.** Interaction of L-6 and TNF- $\alpha$  Contributes to Endothelial Dysfunction in Type 2 Diabetes. *American Physiological Society (APS) Conference: Inflammation, Immunity, and Cardiovascular Disease.* Denver, CO. August 2016
33. Lee W, **Park Y,** Chung E. The Akt/FoxO/Atrogin-1 Signaling Pathways Underlying Cardiac Regression After Detraining In A Mouse Heart. *American College of Sports Medicine (ACSM) Annual Meeting.* Orlando, Florida. May 2014.
34. Lee S, **Park Y,** Y. Zuidema MZ, Laughlin MH, Bowles DK, Baines C, Hannink M, Hil MAI, Kevin KC, and Zhang C. Exercise Training Improves Coronary Microvascular Arteriolar Function in Familial Hypercholesterolemia Porcine Model via Nrf2. *Experimental Biology (American Physiological Society Annual Meeting).* San Diego, CA. April 2012
35. Behnke BJ, Dominguez, II, JM, **Park Y,** and Delp MD, Angiotensin II-Induced Vasoconstriction in Skeletal Muscle: Effects of Aging and TNF- $\alpha$ . *Experimental Biology (American Physiological Society Annual Meeting).* Anaheim, CA. April 2010
36. **Park Y,** Wang Y. Lee S, and Zhang C. Bariatric Surgery Treats Morbid Obesity and Type 2 Diabetes: Mechanisms of Improved Endothelial Function. *American Heart Association (AHA) Scientific Session.* Orlando, FL. November 2009
37. **Park Y,** Lee S, and Zhang C. IL-6 and TNF- $\alpha$  Contributes to Endothelial Dysfunction in Type 2 Diabetes. *The Microcirculatory Society Meeting.* Columbia, MO. October 2009
38. Zhang H, **Park Y,** and Zhang C. The Interactive Balance Between Adiponectin and TNF- $\alpha$  in the Regulation of Aortic and Coronary Endothelial Function in Type 2 Diabetic Mice. *American Heart Association (AHA) ATVB Annual Conference.* Washington, D.C. May 2009
39. **Park Y,** Lee S, Booth FW, Laye MJ, and Zhang C. Physical activity prevents endothelial dysfunction induced by sedentary life style and high fat diet in murine coronary microcirculation.

- Experimental Biology (American Physiological Society Annual Meeting)*. New Orleans, LA. April 2009
40. Lee S, **Park Y**, and Zhang C. Exercise Training Improves Endothelial Dysfunction in Type 2 Diabetes. *Experimental Biology (American Physiological Society Annual Meeting)*. New Orleans, LA. April 2009
  41. **Park Y**, Klaahsen DL and Zhang C. Role of PAR2 in Type 2 Diabetes-induced Endothelial Dysfunction. *Experimental Biology (American Physiological Society Annual Meeting)*. San Diego, CA. April 2008
  42. Zhang C, **Park Y**, Zhang H, Chen X, and Fay WP. Endothelial Dilation in ApoE Null Mice: An Interactive Balance among TNF- $\alpha$ , Adiponectin and LOX-1. *American Heart Association (AHA) Scientific Session*. New Orleans, LA. November 2008
  43. Yang J, **Park Y**, and Zhang C. Effect of Sodium Salicylate on Insulin Resistance and Endothelial Dysfunction of Coronary Arterioles in Diabetic Mice. *Experimental Biology (American Physiological Society Annual Meeting)*. San Diego, CA. April 2008
  44. Klaahsen DL, Zhang H, **Park Y**, Lee S, Hardin C and Zhang C. Extra Virgin Olive Oil and Vascular Health. *Experimental Biology (American Physiological Society Annual Meeting)*. San Diego, CA. April 2008
  45. **Park Y**, X Gao, S Capobianco, Y Gao, WM Chilian and C Zhang. Compensatory Role of EDHF in Type 2 Diabetes-induced Endothelial Dysfunction. *Experimental Biology (American Physiological Society Annual Meeting)*. Washington D.C. April 2007
  46. **Park Y**, Donato AJ, Prisby RD, and Delp MD. Mechanism of Angiotensin II Vasoreactivity in Rat Skeletal Muscle Arterioles: Effect of Aging and Exercise Training. *Experimental Biology (American Physiological Society Annual Meeting)*. San Francisco, CA. April 2006
  47. Starnes JW, **Park Y**, Mathis BJ, Harris MB. Exercise Training Increases Oxidative Stress-Induced Mechanical Dysfunction in Rat Hearts: Role of Endothelial Nitric Oxide Synthase (eNOS). *Experimental Biology (American Physiological Society Annual Meeting)*. Washington D.C. April 2004

### **PROFESSIONAL PRESENTATION (Oral)**

1. KAKACEP 2023, International Conference on Kinesiology. “*Exercise and Brain Vascular Function: Vascular Hypothesis for Alzheimer’s Disease*” Daejeon, Korea. October 2023 (***Invited Virtual Presentation in Highlighted Symposium***)
2. Special Lecture Series sponsored by Exercise Science Institute of Chung-Ang University. Seoul, Korea. “*The Beneficial Effect of Exercise on Vascular Function in Diseases: Its Underlying Mechanisms*” May 2023 (***Invited Virtual Presentation***)
3. Human Movement Science Summer School sponsored by Institute of Sport Science in Seoul National University. Seoul, Korea. “*Exercise and Cerebrovascular Function: Vascular Hypothesis for Alzheimer’s Disease*” July 2023 (***Invited Virtual Presentation***)
4. Annual Conference of Korean Society of Exercise Rehabilitation. Taeahn, Korea. “*Exercise and Cerebrovascular Function: Vascular Hypothesis for Alzheimer’s Disease*”. October 2022 (***Invited Presentation in Highlighted Symposium***)
5. 11th Asia Conference on Kinesiology “*The Beneficial Effect of Exercise on Vascular Health in Diseases*” August 2021 (***Invited Virtual Presentation in Highlighted Symposium***)
6. 34<sup>th</sup> Research Conference of Korean Diabetes Association and Korea-Japan Diabetes Forum. “*Exercise and Vascular Health: Its Underlying Mechanisms*” May 2021 (***Invited Virtual Presentation in Highlighted Symposium***)
7. Special Seminar Series. Department of Physical Education, Chung-Ang University, Seoul, Korea. “*Exercise and Cardiovascular Health*” November 2020 (***Invited Virtual Presentation***)

8. International Conference on Kinesiology 2020, Korea Maritime & Ocean University, Busan, Korea. "*The Beneficial Effect of Exercise on Aged Brain Vascular Function and Its Underlying Mechanisms*". October 2020 (**Invited Virtual Presentation in Highlighted Symposium**)
9. International Conference on Kinesiology 2020, Korea Maritime & Ocean University, Busan, Korea. "*Exercise and Vascular Health in Obesity: Its Underlying Mechanism*". October 2020 (*Invited virtual presentation in Oral Session*)
10. International Conference on Obesity and Chronic Diseases, San Francisco, CA. "*The Protective Effect of Physical Activity on NLRP3 Inflammasome-associated Vascular Dysfunction in Obese Mice*". July 2019
11. ICOMES 2018, International Conference on Obesity and Metabolic Syndrome, Seoul, Korea. "*Exercise and Vascular Health in Obesity*". September 2018 (**Invited Plenary Speaker**)
12. Diabetologists 2018, 11th Diabetologists Conference, New York. "*Role of Physical Activity in Obesity and Type 2 Diabetes-induced Vascular Dysfunction in Heart*" May 2108 (**Invited Plenary Speaker**)
13. Texas A&M University, Korean Aggies Bio Association, KABA, College Station, TX. "*Exercise and Vascular Health*", September 2017 (*Invited Presentation*)
14. HHP Research Symposium, University of Houston. Houston, TX. "*Exercise and Vascular Health*" October 2017
15. Special Seminar Series. Department of Exercise Science, Hanyang University, Seoul, Korea. "*Role of Physical Activity in Obesity-induced Vascular Dysfunction in Heart*" July 2016 (*Invited Presentation*)
16. HHP Research Symposium, University of Houston. Houston, TX. "*The Role of Exercise in Vascular Dysfunction in Disease*" October 2016
17. Seminar Series. Department of Mechanical Engineering, Hanam University, Daejeon, Korean. "*Development of Wearable Device for Cardiac Function & Health Management Service Contents*". April 2015 (*Invited Presentation*)
18. HHP Research Symposium, University of Houston. Houston, TX. "*Exercise Alleviates an Aging-induced Reduction in Blood Flow to Skeletal Muscle*" October 2015
19. International Conference and Exhibition on Obesity & Weight Management, San Francisco, CA. "*Role of Physical Activity in Obesity-induced Vascular Dysfunction in Heart*" December 2014 (**Invited Key Note Forum**)
20. International Conference of Exercise Physiology, Korean Society of Exercise Physiology, Incheon, Korean. "*Role of Physical Activity in Obesity-induced Vascular Dysfunction*" December 2014 (**Invited Key Note Presentation**)
21. HHP Research Symposium, University of Houston. Houston, TX. "*Role of Physical Activity and Exercise in Metabolic Disorder-induced Vascular Dysfunction*" October 2014
22. Department Seminar Series-Health & Kinesiology, Texas A&M University, College Station, TX. "*Role of Physical Activity and Exercise in Metabolic Disorder-induced Vascular Dysfunction*". September 2014 (*Invited Presentation*)
23. Special Seminar, College of Sport Science, Sungkyunkwan University. Suwon, Korea. "*Role of Physical Activity in Obesity-induced Vascular Dysfunction in Heart*". August 2014 (*Invited Presentation*)
24. Lecture Series, Department of Mechanical Engineering. Hannam University. "*Cardiovascular Adaptation to Exercise*". August 2014 (*Invited Presentation*)
25. Seminar Series, Department of Physiology, Wonju College of Medicine, Yonsei University. Wonju, Korea. "*Management of Metabolic Disorder-induced Vascular Dysfunction: Roles of Exercise & Physical Activity*". August 2014 (*Invited Presentation*)
26. HHP Research Symposium, University of Houston. Houston, TX. "*Obesity-induced Vascular Dysfunction & Physical Activity*" October 2013
27. International Conference and Exhibition on Obesity & Weight Management, Philadelphia, PA. Track 4-3: Physical activity and obesity "*Physical activity opposes coronary vascular dysfunction*

*in high fat feeding-induced obese mice*” December 2012 (**Session Chair and Invited Plenary Talk**)

28. International Sports Science Congress, Korean Alliance for Health, Physical Education, Recreation and Dance (KAHPERD), Mokpo National University, Mokpo, South Korea. *“Physical Activity Prevents Vascular Dysfunction Induced by Sedentary Life Style and High Fat Diet in Murine Coronary Microcirculation”* August 2012 (*Invited Presentation*)
29. International Symposium of the Trends and Perspective of Sports Science, Chung-Ang University, Seoul, Korea. *“Physical Activity Opposes Coronary Vascular Dysfunction Induced during High Fat Feeding in Mice”* August 2012 (*Invited Presentation*)
30. American Heart Association Scientific Session 2011. Orlando, FL. CVS.708-Obesity, Metabolic Syndrome and Cardiorenal Disease: *“Bariatric Surgery Treats Morbid Obesity and Type 2 Diabetes: Mechanisms of Improved Endothelial Function.* November 2011 (*Invited Presentation*)
31. Department of Health, Exercise and Sport Science, Texas Tech University, Lubbock, TX. *Role of Exercise and Physical Activity in Vascular Function in Obesity and Type 2 Diabetes.* April 2010 (*Invited Presentation*)
32. Exercise Physiology Seminar, Institute of Sports Science, Seoul National University, Seoul, Korea. *Vascular Dysfunction in Aging and Type 2 Diabetes.* May 2008 (*Invited Presentation*)
33. 3rd Annual Research Retreat of the Cardiovascular Research Institute, Texas A&M Health Science Center, Temple, TX. *Role of EDHF in Type 2 Diabetes-induced Endothelial Dysfunction.* October 2007
34. Exercise Science Seminar 2007, Department of Health and Kinesiology, Texas A&M University, College Station, TX. *Role of EDHF in Type 2 Diabetes-induced Endothelial Dysfunction.* September 2007 (*Invited Presentation*)
35. Annual Meeting of Korean United Applied Physiology Society, Washington D.C. *Effect of Aging and Exercise Training on the Mechanisms of Angiotensin II-Induced Vasoconstriction in Rat Skeletal Muscle Arterioles.* April 2007 (*Invited Presentation*)
36. Pharmacology and Physiology, School of Medicine & Dentistry, University of Rochester Medical Center, Rochester, NY. *Effect of Aging and Exercise Training on the Mechanisms of Angiotensin II-Induced Vasoconstriction in Rat Skeletal Muscle Arterioles.* May 2006 (*Invited Presentation*)
37. Vascular Biology Center, Department of Pharmacology & Toxicology. Medical College of Georgia, Augusta, GA. *Effect of Aging and Exercise Training on Vasoreactivity in Skeletal Muscle Arterioles: Mechanisms of Vasoconstrictors (Angiotensin II).* March 2006 (*Invited Presentation*)

## **FUNDING – Since Fall 2013**

### **ACTIVE RESEARCH SUPPORT**

#### ***External***

#### ***Internal***

1. **CLASS Research Progress Grant** – College of Liberal Arts and Social Science, University of Houston. Role: Principal Investigator. *“Novel Mechanisms of Protective Effect of Exercise for Alzheimer’s Disease: Serotonin in Brain Vascular Function”* Total Amount: \$4,000, January 2024 - December 2024

### **PENDING RESEARCH SUPPORT**

2. **Mistry of Health and Welfare and of Science and ICT of Korea (Korea-US Collaborative Research Fund (KUCRF) Program).** Role: Co-Principal Investigator. *“Development and Validation of AI-Based Digital Therapeutics for Exercise to Enhance Self-Health Management in the Elderly through Prediction of Aging-Related Diseases”* Total Amount: \$2,275,840 (Subcontract to UH: \$ 425,368). September 2024 - June 2027.

3. **National Research Foundation of Korea (Basic Research Laboratory Program), Resubmitted.** Role: Co-Principal Investigator. “The Protective Effect of Exercise on Alzheimer’s Disease and Its Underlying Mechanisms” Total Amount: \$ 574,000. January 2025 - December 2028.

## COMPLETED RESEARCH SUPPORT

### External

4. **Korea Institute of Robot and Convergence (KIRO).** Role: Co-Investigator (10% Effort, PI: Beom-Chan Lee). “Developing and Assessing Wearable Technologies to Predict and Prevent Falls.” Total amount: \$ 444,640. (DC: \$353,600; IDC: \$53,040). June 2017 – June 2021.
5. **NASA (NRA- NNJ16ZSA001N-SRHHC).** Role: Co-Investigator (PI: Michael Delp). “Radiation, Simulated Weightlessness and Countermeasures: Effects on Cerebral and Coronary Vascular Function and Structure.” Total amount: \$1,349,532. (DC: \$972,898; IDC: \$376,634). June 2018 – May 2020. **Selected for funding but no budget has been allocated to UH.**
6. **American College of Sports Medicine (ACSM, Foundation Doctoral Student Research Grant)** Role: Supervisor. (PI: Junyoung Hong, doctoral student). “The effect of exercise on purinergic receptor-mediated cerebrovascular dysfunction in Alzheimer’s Disease”. Total amount: \$5,000 (No IDC). July 2018 – June 2019. Doctoral student training grant.
7. **CardioVascular Research Foundation.** Role: Principal Investigator, “The Effect of Aerobic Exercise on Coronary Arterial Endothelial Function in ApoE-/- Mice – The Role of Liver X Receptor (LXR) and Uncoupling Protein-2 (UCP-2)” Total amount: \$18,057 (Direct Cost: \$16,415 & Indirect Cost: \$1,642). June 2015 – January 2017.

### Internal

8. **CLASS Research Progress Grant** – College of Liberal Arts and Social Science, University of Houston. Role: Principal Investigator, “The Protective Effect of Exercise on Alzheimer’s Disease (AD)-Associated Vascular Dysfunction: From Brain To Aorta” Total Amount: \$4,000, December 2021 - November 2022
9. **Global Faculty Development Fund**– Office of the Provost (UH Global), University of Houston. Role: Principal Investigator, “Development of exchange student program and collaborative research with Universities in Korea” Total Amount: \$1,500, August 2022 - December 2022
10. **Provost’s 50-in-5 Award** – Office of the Provost, University of Houston. Role: Principal Investigator, “The Impact of Exercise on Cardiovascular Function in Heart Failure: Meta-Analysis, and its Methodology” Total Amount: \$5,000, January 2020 - December 2021
11. **Project Completion Grant** – College of Liberal Arts and Social Science, University of Houston. Role: Principal Investigator, “Protective Effect of Exercise on Vascular Dysfunction in Obesity and Alzheimer’s Disease and its Underlying Mechanisms” Total amount: \$1,535, November 2020 – August 2021 2020-2021 cycle I.
12. **CLASS Research Progress Grant (Internal)** – College of Liberal Arts and Social Science, University of Houston. Role: Co-Principal Investigator with Dr. Zderic (Co-PI) “The protective effect of exercise on atherosclerosis-associated vascular dysfunction: Mechanisms through liver X receptor (LXR) and uncoupling protein-2(UCP-2)” Total Amount: \$8,000, January 2019 - August 2019
13. **CLASS Research Progress Grant (Internal)** – College of Liberal Arts and Social Science, University of Houston. Role: Principal Investigator, “The Inflammasome in Obesity-induced Vascular Dysfunction: Physical Activity and Immune System” Total Amount: \$4,000, January 2019 - August 2019
14. **CLASS Project Completion Grant (Internal)** – College of Liberal Arts and Social Science, University of Houston. Role: Principal Investigator, “Understanding the protective effect of



- exercise in obesity-associated vascular dysfunction: Novel mechanisms of inflammasome.”  
Total amount: \$3,600, December 2018 – May 2019 2018-2019 cycle I.
15. **CLASS Project Completion Grant** (Internal) – College of Liberal Arts and Social Science, University of Houston. Role: Principal Investigator, “The Role of Exercise in Cardiovascular Health: Publication of Scientific Journals and Grant Proposals.” Total amount: \$2,000 (\$4,000 requested, but partially funded), December 2017 – June 2018, 2017-2018 cycle I.
  16. **CLASS Project Completion Grant** (Internal) – College of Liberal Arts and Social Science, University of Houston. Role: Principal Investigator, “The Role of Exercise in Cardiovascular Health: Publication of Scientific Journals and Grant Proposals.” Total amount: \$2,000 (\$4,000 requested, but partially funded), March 2018 – October 2018, 2017-2018 cycle II.
  17. **Texas Obesity Research Center** (TORC). Role: Principal Investigator, “Impact of Low Intensity Physical Activity on Metabolism: In Vivo Approach of Vascular Function And Glucose Metabolism”, Total amount: \$15,000, June 2017 – August 2018.
  18. **CLASS Research Progress Grant** (Internal) – College of Liberal Arts and Social Science, University of Houston. Role: Principal Investigator, “The Inflammasome in Obesity-induced Vascular Dysfunction: Physical Activity and Immune System” Total Amount: \$8,000, February 2017 - January 2018
  19. **CLASS Research Progress Grant** (Internal) – College of Liberal Arts and Social Science, University of Houston. Role: Principal Investigator, “The effect of Exercise on Alzheimer Disease-associated Vascular Dysfunction and Pathologies” Total Amount: \$4,000, February 2017 - January 2018
  20. **Small Grant Program** (Internal) – Division of Research, University of Houston. Role: Principal Investigator, “Physical Activity Prevents Vascular Dysfunction in Obesity Through Liver X Receptor (LXR) Uncoupling Protein-2(UCP-2) Signaling Pathway”, Total Amount: \$3,000/ January 2016 – December 2017
  21. **CLASS Research Progress Grant** (Internal) – College of Liberal Arts and Social Science, University of Houston. Role: Principal Investigator, “Mechanisms for Coronary Vascular Adaptation to Obesity and Physical Activity” Total Amount: \$4,000, June 2015 - May 2016
  22. **Small Grant Program** (Internal)-Division of Research, University of Houston. Role: Principal Investigator, “Role of Ocular Resistance Vasculature in Microgravity-induced Visual Impairment”, Total Amount: \$3,000/ January 2014 – August 2015 (Extended until August 2016)
  23. **New Faculty Research Program** (Division of Research, University of Houston). Role: Principal Investigator, “Cerebromicrovascular Dysfunction in Alzheimer Disease and Effect of Physical Activity”, Total Amount: \$6,000, December 2013 – August 2014