

Curriculum Vitae
Choongsung Yoo, PhD

Post Doc Fellow, Laboratory of Perinatal Kinesioepigenetics, Department of Obstetrics,
Gynecology and Reproductive Sciences, University of Maryland School of Medicine

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Contact Information

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Foreign Languages: Korean (native)

Education

2010 - 2016 **B.S.** Physical Education, Konkuk University, South Korea

2016 - 2018 **M.S.** in Physical Education (*Advisor: prof. Kiwon Lim*)
Konkuk University, Seoul Republic of Korea
(Emphasis: *Exercise Nutrition*)
Thesis: *The effect of lactate and co-ingested caffeine on energy substrate utilization in rats*

2019 - 2024 **Ph.D.** in Kinesiology (*Advisor: prof. Richard B. Kreider*)
Texas A&M University, College Station, TX 77845, USA
(Emphasis: *Exercise Nutrition*)
Dissertation: *Effects of supplementation with microalgae extract from Phaeodactylum tricornutum containing fucoxanthin on cognitive function and markers of health in older men and women with evidence of age-associated memory decline*

Certifications

2022 Certified Sports Nutritionist, International Society of Sports Nutrition

2022 Certified Strength & Conditioning Specialist, National Strength & Conditioning Association

2022 Certified Phlebotomy Technician, National Performance Specialist

2022 Medical Statistics 1, Stanford Center for Professional Development and Stanford Online

Employment History

- 2016-2019 Research Assistant, Exercise and Sport Nutrition Laboratory, Konkuk University, South Korea
- 2019-2024 Research Assistant, Exercise and Sport Nutrition Laboratory, Texas A&M University, College Station, TX 77845
- 2022-2024 Instructor of record for KINE 428 Exercise Biomechanics, Department of Kinesiology and Sport Management, Texas A&M University, College Station, TX 77845
- 2024-Present

Teaching Service

- 2022-present Teaching Assistant, Kinesiology (KINE 428), Department of Kinesiology and Sport Management, Texas A&M University, College Station, TX 77845
20 students, 4-hour lab weekly over the 16-week semester

Publications

Peer-reviewed journal articles

1. Jiwoong Jang^{*}, Hun-Young Park, **Choongsung Yoo**, Yeram Park, Jisu Kim, Kiwon Lim[#], “The synergistic effect of protein complex supplementation combined with 12 weeks of resistance training on isokinetic muscular function in untrained young males.” *Journal of Exercise Nutrition & Biochemistry* **2017** (Dec 31), 21(4), 27-36.
2. Nahun Kim^{*}, Jisu Kim, **Choongsung Yoo**, Kiwon Lim, Takayuki Akimoto, Jonghoon Park[#], “Effect of acute mid-intensity treadmill exercise on the androgen hormone level and uncoupling protein-1 expression in brown fat tissue of mouse.” *Journal of Exercise Nutrition & Biochemistry* **2018**(Mar 30), 22(1), 15-21.
3. Sunghwan Kyun^{*}, **Choongsung Yoo**, Takeshi Hashimoto, Hironori Tomi, Noboru Teramoto, Jisu Kim, Kiwon Lim[#], “Effects of exogenous lactate administration on fat metabolism and glycogen synthesis factors in rats.” *Physical Activity and Nutrition* **2020** (Jun 30), 24(2), 1-5.
4. Sunghwan Kyun^{*}, **Choongsung Yoo**, Hun-Young Park, Jisu Kim, Kiwon Lim[#], “The Effects of Exogenous Lactate Administration on the IGF1/Akt/mTOR Pathway in Rat Skeletal Muscle.” *International Journal of Environmental Research and Public Health* **2020**(Oct 25), 17(21).
5. Ryan Sowinski^{*}, Drew Gonzalez, Dante Xing, **Choongsung Yoo**, Victoria Jenkins, Kay Nottingham, Broderick Dickerson, Megan Humphries, Megan Leonard, Joungbo Ko, Mark Faries, Wesley Kephart, Christopher J. Rasmussen, Richard B. Kreider[#], “Effects of arginine silicate and inositol ingestion on cognitive and executive function in gamers.” *Nutrients* **2021**(Oct 24), 13(11), 3758.
6. **Choongsung Yoo**^{*}, Dante Xing, Drew Gonzalez, Victoria Jenkins, Kay Nottingham, Broderick Dickerson, Megan Leonard, Joungbo Ko, Mark Faries, Wesley Kephart, Martin Purpura, Ralf Jäger, Shaw D Wells, Ryan Sowinski, Christopher J Rasmussen, Richard B. Kreider[#], “Acute paraxanthine ingestion improves cognition and short-term memory and

- helps sustain attention in a double-blind, placebo-controlled, crossover trial.” *Nutrients* **2021** (Nov 9), 13(11), 3980.
7. Dante Xing^{*}, **Choongsung Yoo**, Drew Gonzalez, Victoria Jenkins, Kay Nottingham, Broderick Dickerson, Megan Leonard, Joungbo Ko, Mark Faries, Wesley Kephart, Martin Purpura, Ralf Jäger, Shawn D. Wells, Ryan Sowinski, Christopher J. Rasmussen, Richard B. Kreider[#], “Dose-response of paraxanthine on cognitive function: A double blind, placebo controlled, crossover trial.” *Nutrients* **2021** (Dec 15), 13(12), 4478.
 8. Dante Xing^{*}, **Choongsung Yoo**, Drew Gonzalez, Victoria Jenkins, Kay Nottingham, Broderick Dickerson, Megan Leonard, Joungbo Ko, Mark Faries, Wesley Kephart, Martin Purpura, Ralf Jäger, Ryan Sowinski, Christopher J. Rasmussen, Richard B. Kreider[#], “Effects of acute Ashwagandha ingestion on cognitive function.” *International Journal of Environmental Research and Public Health* **2022** (Sep 20), 19(19), 11852.
 9. **Choongsung Yoo**^{*}, Jisu Kim, Sunghwan Kyun, Takeshi Hashimoto, Hironori Tomi, Kiwon Lim[#], “Synergic effect of exogenous lactate and caffeine on fat oxidation and hepatic glycogen concentration in resting rats” *Physical Activity and Nutrition* **2022** (Dec 31), 26(4), 5.
 10. Megan Leonard^{*}, Jonathan Maury, Broderick Dickerson, Drew E Gonzalez, Jacob Kendra, Victoria Jenkins, Kay Nottingham, **Choongsung Yoo**, Dante Xing, Joungbo Ko, Rémi Pradelles, Mark Faries, Wesley Kephart, Ryan Sowinski, Christopher J. Rasmussen, Richard B. Kreider[#], “Effects of dietary supplementation of a microalgae extract containing fucoxanthin combined with guarana on cognitive function and gaming performance” *Nutrients* **2023**(Apr 15), 15(8), 1918.
 11. Joungbo Ko^{*}, **Choongsung Yoo**, Dante Xing, Drew E Gonzalez, Victoria Jenkins, Broderick Dickerson, Megan Leonard, Kay Nottingham, Jacob Kendra, Ryan Sowinski, Christopher J. Rasmussen, Richard B. Kreider[#], “Pharmacokinetic Analyses of Liposomal and Non-Liposomal Multivitamin/Mineral Formulations” *Nutrients* **2023**(Jul 7), 15(13), 3073.
 12. Broderick Dickerson^{*}, Jonathan Maury, Victoria Jenkins, Kay Nottingham, Dante Xing, Drew E Gonzalez, Megan Leonard, Jacob Kendra, Joungbo Ko, **Choongsung Yoo**, Sarah Johnson, Rémi Pradelles, Martin Purpura, Ralf Jäger, Ryan Sowinski, Christopher J. Rasmussen, Richard B. Kreider[#], “Effects of Supplementation with Microalgae Extract from *Phaeodactylum tricornutum* (Mi136) to Support Benefits from a Weight Management Intervention in Overweight Women” *Nutrients* **2024** (Mar 28), 16(7), 990.
 13. Leonard, M., Dickerson, B., Estes, L., Gonzalez, D. E., Jenkins, V., Johnson, S., Dante Xing, **Choongsung Yoo**, Joungbo Ko, Martin Purpura, Ralf Jäger, Mark Faries, Wesley Kephart, Ryan Sowinski, Christopher J. Rasmussen, Kreider, R. B[#], “Acute and Repeated Ashwagandha Supplementation Improves Markers of Cognitive Function and Mood” *Nutrients* **2024** (June 8), 16(12), 1813.
 14. **Choongsung Yoo**, Dante Xing, Drew E Gonzalez, Victoria Jenkins, Kay Nottingham, Broderick Dickerson, Megan Leonard, Joungbo Ko, Megan H Lewis, Mark Faries, Wesley Kephart, Martin Purpura, Ralf Jäger, Shawn D Wells, Kylin Liao, Ryan Sowinski, Christopher J Rasmussen, Richard B **Kreider**[#], “Paraxanthine provides greater improvement in cognitive function than caffeine after performing a 10-km run” *Journal of the International Society of Sports Nutrition* 2024 (May 09) 21(1), 2352779.

Book Chapters

1. **Yoo, C.**, & Kreider, R. “Lactase.” In Health Professional’s Guide to Dietary Supplements. Academy of Nutrition and Dietetics. Cleveland, OH. e-book October 2023, pp. 342 – 346, 2024.

Abstracts and/or Proceedings

1. Kim, J., **Yoo, C.**, Park, J., Hashimoto, T., Tomi, H., Kawasaki, M., Lim, K. (2016). Lactate and caffeine treatment can increase fat oxidation on resting metabolic rate in rats. 2016 KFN International Symposium and 67th Annual Meeting of Korean Society of Food Science and Nutrition (Korea).
2. **Yoo, C.**, Kim, J., Hashimoto, T., Tomi, H., Kawasaki, M., Lim, K. (2016). Effect of lactate and caffeine mixture treatment on energy metabolism gene expression in rats skeletal muscle. 2016 KFN International Symposium and 67th Annual Meeting of Korean Society of Food Science and Nutrition (Korea). *Outstanding Poster Reward” awarded by the President of KFN.
3. **Yoo, C.**, Kim, J., Kim, H., Hwang, Y., Kim, E., Park, Y., Lim, K. (2017). Lactate co-ingested with caffeine stimulates fat oxidation in resting mice. Experimental Biology 2017 Meeting. Published Multimedia (including software, audio, video, etc.)
4. Kyun, S., **Yoo, C.**, Jang, I., Kim, J., Lim, K. (2020). Exogenous lactate intake can induce muscle synthesis in rats. Experimental Biology 2020 Meeting.
5. **Yoo, C.**, Kim, J., Kyun, S., Kreider, R. B., Lim, K. (2020). Exogenous lactate increases fat oxidation in resting rats. Experimental Biology 2020 Meeting
6. Dickerson, B., Xing, D., **Yoo, C.**, Jenkins, T., Nottingham, K., Gonzalez, D., Leonard, M., Ko, J., Faries, M., Kephart, W., Purpura, M., Jager, R., Wells, S. D., Sowinski, R., Rasmussen C. J., & Kreider, R. B. (2021). Dose-ranging study of paraxanthine ingestion on cognition, executive function, and psychomotor vigilance. International Society of Sports Nutrition: 18th Annual Conference.
7. Leonard, M., Gonzalez, D., Xing, D., **Yoo, C.**, Jenkins, T., Nottingham, K., Dickerson, B., Ko, J., Faries, M., Kephart, W., Purpura, M., Jager, R., Sowinski, R., Rasmussen C. J., & Kreider, R. B. (2021). Acute paraxanthine ingestion improves cognition, short-term memory and helps to sustain attention. International Society of Sports Nutrition: 18th Annual Conference.
8. Xing, D., **Yoo, C.**, Gonzalez, D., Jenkins, T., Nottingham, K., Dickerson, B., Leonard, M., Ko, J., Humphries, M., Faries, M., Kephart, W., Purpura, M., Jager, R., Wells, S. D., Sowinski, R., Rasmussen C. J., & Kreider, R. B. (2021). Paraxanthine provides greater improvement in cognitive function and psychomotor vigilance prior to and following running than caffeine. International Society of Sports Nutrition: 18th Annual Conference.
9. Gonzalez, D., Sowinski, R., Xing, D., **Yoo, C.**, Jenkins, T., Nottingham, K., Dickerson, B., Leonard, M., Ko, J., Humphries, M., Faries, M., Kephart, W., Rasmussen C. J., & Kreider, R. B. (2021). Effects of Arginine Silicate and Inositol Ingestion on Cognitive and Executive Function in Gamers. International Society of Sports Nutrition: 18th Annual Conference
10. Gonzalez, D., Nottingham, K., Leonard, M., Dickerson, B., Jenkins, T., Kendra, J., **Yoo, C.**, Xing, D., Ko, J., Sowinski, R., Rasmussen C. J., & Kreider, R. B. (2022). Effects of acute and short-term Montmorency tart cherry supplementation on food-induced increases in uric acid and markers of cardiometabolic health: A proof of concept study. International Society of Sports Nutrition: 19th Annual Conference
11. Leonard, M., Maury, J., Dickerson, B., Gonzalez, D., Kendra, J., Jenkins, T., Nottingham, K., **Yoo, C.**, Xing, D., Ko, J., Pradelles, R., Sowinski, R., Rasmussen C. J., & Kreider, R. B.

- (2022). Efficacy of a microalgae extract combined with natural Guarana on cognitive performance of gamers I: Card sorting task test. International Society of Sports Nutrition: 19th Annual Conference.
12. Maury, J., Leonard, M., Dickerson, B., Gonzalez, D., Kendra, J., Jenkins, T., Nottingham, K., **Yoo, C.**, Xing, D., Ko, J., Pradelles, R., Sowinski, R., Rasmussen C. J., & Kreider, R. B. (2022). Efficacy of a microalgae extract combined with natural Guarana on cognitive performance of gamers II: Sternberg task test. International Society of Sports Nutrition: 19th Annual Conference.
 13. Dickerson, B., Leonard, M., Maury, J., Gonzalez, D., Kendra, J., Jenkins, T., Nottingham, K., **Yoo, C.**, Xing, D., Ko, J., Pradelles, R., Sowinski, R., Rasmussen C. J., & Kreider, R. B. (2022). Efficacy of a microalgae extract combined with natural Guarana on cognitive performance of gamers III: Go/No-Go test. International Society of Sports Nutrition: 19th Annual Conference.
 14. Kendra, J., Leonard, M., Maury, J., Gonzalez, D., Dickerson, B., Jenkins, T., Nottingham, K., **Yoo, C.**, Xing, D., Ko, J., Pradelles, R., Sowinski, R., Rasmussen C. J., & Kreider, R. B. (2022). Efficacy of a microalgae extract combined with natural Guarana on cognitive performance of gamers IV: Psychomotor vigilance. International Society of Sports Nutrition: 19th Annual Conference
 15. Gonzalez, D. E., Leonard, M., Dickerson, B., Jenkins, T., Kendra, J., **Yoo, C.**, Xing, D., Ko, J., Sowinski, R., Rasmussen C. J., & Kreider, R. B. (2023). Effects of acute Montmorency tart cherry supplementation on food-induced increases in uric acid and inflammatory markers: A proof of concept study. American Society for Nutrition; Nutrition 2023 Conference
 16. Jang, I., Park, Y., Kyun, S., Hwang, D., **Yoo, C.**, Park, H., Kim, J., Lim, K. (2023). Intermittent hypoxic exposure and exercise training positively affect body composition and energy substrate utilization in high-fat diet-induced obese mice. American Physiology Summit 2023 Meeting.
 17. Gonzalez, D. E., Dillard, C. C., Leonard, M., Dickerson, L. B., **Yoo, C.**, Ko, J., Xing, D., Jenkins, T., Johnson, E. S., Estes, L., Sowinski, R., Rasmussen C. J., Martin, E. S., McAllister, J. M., & Kreider, R. B. (2023). Effects of astaxanthin on inflammatory and oxidative stress responses to fire suppression activities. International Society of Sports Nutrition: 20th Annual Conference
 18. Gonzalez, D. E., Dillard, C. C., Leonard, M., Dickerson, L. B., **Yoo, C.**, Ko, J., Sowinski, R., Rasmussen C. J., McAllister, J. M., & Kreider, R. B. (2023). Effects of Astaxanthin on Cardiorespiratory Fitness and Cardiometabolic Health Parameters Among Career Firefighters. National Strength and Conditioning Association: 2023 National Conference
 19. Xing, D., Leonard, M., Estes, L., Dickerson, B., Gonzalez, D. E., Johnson, S., Jenkins, V., Ko, J., **Yoo, C.**, Purpura, M., Jager, R., Sowinski, R., Rasmussen, C. J., & Kreider, R. B. (2023). Effects of Liposomal ashwagandha supplementation on markers of health and safety in healthy adults. International Society of Sports Nutrition: 20th Annual Conference.
 20. Johnson, S., Leonard, M., Dickerson, B., Gonzalez, D. E., Estes, L., Xing, D., Jenkins, V., Ko, J., **Yoo, C.**, Purpura, M., Jager, R., Sowinski, R., Rasmussen, C. J., & Kreider, R. B. (2023). Effects of liposomal ashwagandha supplementation on markers of health and cognitive function in healthy adults: COMPASS cognitive function assessment II. International Society of Sports Nutrition: 20th Annual Conference

21. Leonard, M., Dickerson, B., Gonzalez, D. E., Johnson, S., Estes, L., Xing, D., Jenkins, V., Ko, J., **Yoo, C.**, Purpura, M., Jager, R., Sowinski, R., Rasmussen, C. J., & Kreider, R. B. (2023). Effects of liposomal ashwagandha supplementation on markers of health and cognitive function in healthy adults: COMPASS cognitive function assessment I. International Society of Sports Nutrition: 20th Annual Conference
22. Estes, L., Leonard, M., Dickerson, B., Gonzalez, D. E., Johnson, S., Xing, D., Jenkins, V., Ko, J., **Yoo, C.**, Purpura, M., Jager, R., Sowinski, R., Rasmussen, C. J., & Kreider, R. B. (2023). Effects of liposomal ashwagandha supplementation on markers of mood. International Society of Sports Nutrition: 20th Annual Conference
23. Dickerson, B., Sowinski, R., Leonard, M., Gonzalez, D. E., Kendra, J., Martinez, V., Nottingham, K., **Yoo, C.**, Xing, D., Ko, J., Johnson, S., Estes, L., Maury, J., Pradelles, R., Faries, M., Kephart, W., Rasmussen, C. J., & Kreider, R. B. (2023). Effects of dietary supplementation of a microalgae extract containing fucoxanthin combined with Guarana on cognitive function and gaming performance III: Light Reaction Test. International Society of Sports Nutrition: 20th Annual Conference
24. Martinez, V., Sowinski, R., Leonard, M., Dickerson, B., Gonzalez, D. E., Kendra, J., Nottingham, K., **Yoo, C.**, Xing, D., Ko, J., Johnson, S., Estes, L., Maury, J., Pradelles, R., Faries, M., Kephart, W., Rasmussen, C. J., & Kreider, R. B. (2023). Effects of dietary supplementation of a microalgae extract containing fucoxanthin combined with Guarana on cognitive function and gaming performance II: Profile of Mood States. International Society of Sports Nutrition: 20th Annual Conference.
25. Sowinski, R., Leonard, M., Dickerson, B., Gonzalez, D. E., Kendra, J., Martinez, V., Nottingham, K., **Yoo, C.**, Xing, D., Ko, J., Johnson, S., Estes, L., Maury, J., Pradelles, R., Faries, M., Kephart, W., Rasmussen, C. J., & Kreider, R. B. (2023). Effects of dietary supplementation of a microalgae extract containing fucoxanthin combined with Guarana on cognitive function and gaming performance I: Game Performance. International Society of Sports Nutrition: 20th Annual Conference
26. Ko, J., **Yoo, C.**, Xing, D., Gonzalez, D. E., Jenkins, V., Dickerson, B., Leonard, M., Nottingham, K., Kendra, J., Sowinski, R., Rasmussen, C. J., & Kreider, R. B. (2023). Pharmacokinetic analyses of food and non-food-derived multivitamin/mineral formulations I: Serum changes. International Society of Sports Nutrition: 20th Annual Conference.
27. **Yoo, C.**, Ko, J., Xing, D., Gonzalez, D. E., Jenkins, V., Dickerson, B., Leonard, M., Nottingham, K., Kendra, J., Sowinski, R., Rasmussen, C. J., & Kreider, R. B. (2023). Pharmacokinetic analyses of food and non-food-derived multivitamin/mineral formulations II: Detailed pharmacokinetic analysis. International Society of Sports Nutrition: 20th Annual Conference

Major Invited Speeches

1. **Choongsung Yoo.** L-lactate administration stimulates fat oxidation and glycogen storage in resting rats. 2017 International Sport Science Congress in Commemoration of the 1988 Seoul Olympic Games (Korea), Dankuk University, South Korea. June 2017.
2. **Choongsung Yoo.** Effect of caffeine and lactate mixed compound on fat oxidation. International Conference on Sports Science, Konkuk University, South Korea. March 2017.

3. **Choongsung Yoo.** Co-Ingestion of lactate with caffeine increases fat oxidation and liver glycogen level in resting rats. International Conference on Sports Science, Ritsumeikan University, Japan. February 2018.
4. **Choongsung Yoo.** Effect of Paraxanthine on Cognitive Function. Seminare lecture, Department of Physical Education, Konkuk University. October 2022.