

Exercise biologist with expertise in metabolism, proteomics, and bioinformatics. I'm interested in combining these approaches to better understand interorgan communication mediated by secreted proteins during exercise and in individuals with metabolic diseases. I am an avid R user for data processing, visualization, and communication/reports, and am passionate about open and reproducible science.

List of Publications

First Author Publications

1. Kurgan, N., Baranowski, B., Stoikos, J., MacNeil, A. J., Fajardo, V. A., MacPherson, R. E. K., & Klentrou, P. (2022). Characterization of sclerostin's response within white adipose tissue to an obesogenic diet at rest and in response to acute exercise in male mice [Journal Article]. *Front Physiol*, 13, 1061715. <https://doi.org/10.3389/fphys.2022.1061715>
2. Kurgan, N., Bott, K. N., Helmecki, W. E., Roy, B. D., Brindle, I. D., Klentrou, P., & Fajardo, V. A. (2019). Low dose lithium supplementation activates wnt/ β -catenin signalling and increases bone OPG/RANKL ratio in mice [Journal Article]. *Biochem Biophys Res Commun*, 511(2), 394–397. <https://doi.org/10.1016/j.bbrc.2019.02.066>
3. Kurgan, N., Islam, H., Matusiak, J. B. L., Baranowski, B. J., Stoikos, J., Fajardo, V. A., MacPherson, R. E. K., Gurd, B. J., & Klentrou, P. (2022). Subcutaneous adipose tissue sclerostin is reduced and wnt signaling is enhanced following 4-weeks of sprint interval training in young men with obesity [Journal Article]. *Physiol Rep*, 10(6), e15232. <https://doi.org/10.14814/phy2.15232>
4. Kurgan, N., Logan-Sprenger, H., Falk, B., & Klentrou, P. (2018). Bone and inflammatory responses to training in female rowers over an olympic year [Journal Article]. *Med Sci Sports Exerc*, 50(9), 1810–1817. <https://doi.org/10.1249/mss.0000000000001640>
5. Kurgan, N., McKee, K., Calleja, M., Josse, A. R., & Klentrou, P. (2020). Cytokines, adipokines, and bone markers at rest and in response to plyometric exercise in obese vs normal weight adolescent females [Journal Article]. *Front Endocrinol (Lausanne)*, 11, 531926. <https://doi.org/10.3389/fendo.2020.531926>
6. Kurgan, N., Noaman, N., Pergande, M. R., Cologna, S. M., Coorssen, J. R., & Klentrou, P. (2019). Changes to the human serum proteome in response to high intensity interval exercise: A sequential top-down proteomic analysis [Journal Article]. *Front Physiol*, 10, 362. <https://doi.org/10.3389/fphys.2019.00362>
7. Kurgan, N., Skelly, L. E., Ludwa, I. A., Klentrou, P., & Josse, A. R. (2022). Twelve weeks of a diet and exercise intervention alters the acute bone response to exercise in adolescent females with overweight/obesity [Journal Article]. *Front Physiol*, 13, 1049604. <https://doi.org/10.3389/fphys.2022.1049604>
8. Kurgan, N., Stoikos, J., Baranowski, B. J., Yumol, J., Dhaliwal, R., Swezey-Munroe, J. B., Fajardo, V. A., Gittings, W., Macpherson, R. E. K., & Klentrou, P. (2023). Sclerostin influences exercise-induced adaptations in body composition and white adipose tissue morphology in male mice [Journal Article]. *J Bone Miner Res*, 38(4), 541–555. <https://doi.org/10.1002/jbmr.4768>
9. Kurgan, N., Tsakiridis, E., Kouvelioti, R., Moore, J., Klentrou, P., & Tsiani, E. (2017). Inhibition of human lung cancer cell proliferation and survival by post-exercise serum is associated with the inhibition of akt, mTOR, p70 S6K, and Erk1/2 [Journal Article]. *Cancers (Basel)*, 9(5). <https://doi.org/10.3390/cancers9050046>
10. Kurgan, N., Whitley, K. C., Maddalena, L. A., Moradi, F., Stoikos, J., Hamstra, S. I., Rubie, E. A., Kumar, M., Roy, B. D., Woodgett, J. R., Stuart, J. A., & Fajardo, V. A. (2019). A low-therapeutic dose of lithium inhibits GSK3 and enhances myoblast fusion in C2C12 cells [Journal Article]. *Cells*, 8(11). <https://doi.org/10.3390/cells8111340>

Co-Author Publications

1. Baranowski, R. W., Braun, J. L., Hockey, B. L., Yumol, J. L., Geromella, M. S., Watson, C. J. F., Kurgan, N., Messner, H. N., Whitley, K. C., MacNeil, A. J., Gauquelin-Koch, G., Bertile, F., Gittings, W., Vandenboom, R., Ward, W. E., & Fajardo, V. A. (2023). Towards countering muscle and bone loss with spaceflight: GSK3 as a potential target [Journal Article]. *iScience*, 107047. <https://doi.org/10.1016/j.isci.2023.107047>
2. Beigpoor, A., McKinlay, B. J., Kurgan, N., Plyley, M. J., O'Leary, D., Falk, B., & Klentrou, P. (2021). Cytokine concentrations in saliva vs. Plasma at rest and in response to intense exercise in adolescent athletes [Journal Article]. *Ann Hum Biol*, 48(5), 389–392. <https://doi.org/10.1080/03014460.2021.1980105>

3. Copeland, E. N., Watson, C. J. F., Whitley, K. C., Baranowski, B. J., Kurgan, N., MacNeil, A. J., MacPherson, R. E. K., Fajardo, V. A., & Allison, D. J. (2022). Kynurenine metabolism is altered in mdx mice: A potential muscle to brain connection [Journal Article]. *Exp Physiol*, 107(9), 1029–1036. <https://doi.org/10.1113/ep090381>
4. Dekker, J., Nelson, K., Kurgan, N., Falk, B., Josse, A., & Klentrou, P. (2017). Wnt signaling-related osteokines and transforming growth factors before and after a single bout of plyometric exercise in child and adolescent females [Journal Article]. *Pediatr Exerc Sci*, 29(4), 504–512. <https://doi.org/10.1123/pes.2017-0042>
5. Guzman, A., Kurgan, N., Moniz, S. C., McCarthy, S. F., Sale, C., Logan-Sprenger, H., Elliott-Sale, K. J., Hazell, T. J., & Klentrou, P. (2022). Menstrual cycle related fluctuations in circulating markers of bone metabolism at rest and in response to running in eumenorrheic females [Journal Article]. *Calcif Tissue Int*, 111(2), 124–136. <https://doi.org/10.1007/s00223-022-00970-4>
6. Hamstra, S. I., Kurgan, N., Baranowski, R. W., Qiu, L., Watson, C. J. F., Messner, H. N., MacPherson, R. E. K., MacNeil, A. J., Roy, B. D., & Fajardo, V. A. (2020). Low-dose lithium feeding increases the SERCA2a-to-phospholamban ratio, improving SERCA function in murine left ventricles [Journal Article]. *Exp Physiol*, 105(4), 666–675. <https://doi.org/10.1113/ep088061>
7. Hamstra, S. I., Whitley, K. C., Baranowski, R. W., Kurgan, N., Braun, J. L., Messner, H. N., & Fajardo, V. A. (2020). The role of phospholamban and GSK3 in regulating rodent cardiac SERCA function [Journal Article]. *Am J Physiol Cell Physiol*, 319(4), C694–c699. <https://doi.org/10.1152/ajpcell.00318.2020>
8. Klentrou, P., Angrish, K., Awadia, N., Kurgan, N., Kouvelioti, R., & Falk, B. (2018). Wnt signaling-related osteokines at rest and following plyometric exercise in prepubertal and early pubertal boys and girls [Journal Article]. *Pediatr Exerc Sci*, 30(4), 457–465. <https://doi.org/10.1123/pes.2017-0259>
9. Klentrou, P., McKee, K., McKinlay, B. J., Kurgan, N., Roy, B. D., & Falk, B. (2021). Circulating levels of bone markers after short-term intense training with increased dairy consumption in adolescent female athletes [Journal Article]. *Children (Basel)*, 8(11). <https://doi.org/10.3390/children8110961>
10. Kouvelioti, R., Kurgan, N., Falk, B., Ward, W. E., Josse, A. R., & Klentrou, P. (2018). Response of sclerostin and bone turnover markers to high intensity interval exercise in young women: Does impact matter? [Journal Article]. *Biomed Res Int*, 2018, 4864952. <https://doi.org/10.1155/2018/4864952>
11. Kouvelioti, R., Kurgan, N., Falk, B., Ward, W. E., Josse, A. R., & Klentrou, P. (2019). Cytokine and sclerostin response to high-intensity interval running versus cycling [Journal Article]. *Med Sci Sports Exerc*, 51(12), 2458–2464. <https://doi.org/10.1249/mss.0000000000002076>
12. McKinlay, B. J., Theocharidis, A., Adebero, T., Kurgan, N., Fajardo, V. A., Roy, B. D., Josse, A. R., H, M. L.-S., Falk, B., & Klentrou, P. (2020). Effects of post-exercise whey protein consumption on recovery indices in adolescent swimmers [Journal Article]. *Int J Environ Res Public Health*, 17(21). <https://doi.org/10.3390/ijerph17217761>
13. McKinlay, B. J., Wallace, P. J., Olansky, S., Woods, S., Kurgan, N., Roy, B. D., Josse, A. R., Falk, B., & Klentrou, P. (2022). Intensified training in adolescent female athletes: A crossover study of greek yogurt effects on indices of recovery [Journal Article]. *J Int Soc Sports Nutr*, 19(1), 17–33. <https://doi.org/10.1080/15502783.2022.2044732>
14. Papadopoulos, E., Gillen, J., Moore, D., Au, D., Kurgan, N., Klentrou, P., Finelli, A., Alibhai, S. M. H., & Santa Mina, D. (2021). High-intensity interval training or resistance training versus usual care in men with prostate cancer on active surveillance: A 3-arm feasibility randomized controlled trial [Journal Article]. *Appl Physiol Nutr Metab*, 46(12), 1535–1544. <https://doi.org/10.1139/apnm-2021-0365>
15. Skelly, L. E., Barbour-Tuck, E. N., Kurgan, N., Calleja, M., Klentrou, P., Falk, B., & Josse, A. R. (2021). Neutral effect of increased dairy product intake, as part of a lifestyle modification program, on cardiometabolic health in adolescent girls with overweight/obesity: A secondary analysis from a randomized controlled trial [Journal Article]. *Front Nutr*, 8, 673589. <https://doi.org/10.3389/fnut.2021.673589>