

Bailey McLagan

mclagan@usc.edu | LinkedIn: Bailey-McLagan

Education

University of Southern California
M.S. Biokinesiology with Sports Science Emphasis

Los Angeles, CA
Expected May 2022

University of Colorado
B.A. Integrative Physiology
▪ 3.912/4.0 GPA
▪ Dean's List all semesters

Boulder, CO
December 2020

Relevant Coursework

Nutrition for Health and Performance • Human Physiology • Human Anatomy • Human Anatomy Cadaver Lab • Perspectives in Health and Medicine • Endocrinology • Biochemistry • Organic Chemistry and Lab • Physics • Biology • Immunology • Biomechanics • Exercise Physiology

Research Experience

Neurophysiology of Movement Lab

February 2020-May 2021

Undergraduate Research Assistant

Boulder, CO

- Used surface EMG to track motor units during maximal voluntary and submaximal contractions.
- Learned to use MATLAB to decompose EMG signals and organize findings in a presentable format.
- Conducted an independent study focused on the motor unit activity of the Vastus Lateralis during a fatiguing contraction. Findings were presented at the National Undergraduate Research conference in the Spring of 2021.
- Attended weekly lab meetings that discussed the progress of ongoing studies. The meetings also reviewed previously published studies focused on motor unit recruitment and activity.

Children's Hospital of Colorado

June 2019-August 2019

Child Health Research Intern

Aurora, CO

- Used Western Blotting techniques to investigate the effect that elevated Homocysteine levels had on IgG concentrations in a mouse model of Classic Homocystinuria.
- Learned protein deamination to prepare samples for analysis.
- Attended weekly meetings that presented current medical techniques and findings.
- Presented findings to the program at the end of the summer, as well as summarized findings in an overview paper for the Child Health Research committee.

Publications

MacLean, K., Jiang, H., Phinney, W.N., **McLagan, B.M.**, Roede, J.R., & Stabler, S.P. (2021).

Derangement of hepatic polyamine, folate, and methionine cycle metabolism in cystathionine beta-synthase-deficient homocystinuria in the presence and absence of treatment: Possible implications for pathogenesis. *Molecular Genetics and Metabolism*, 132(2): 128-138.

Mazzo, M.R., Weinman, L.E., Giustino, V., **McLagan, B.**, Maldonado, J., & Enoka, R.M. (2021).

Changes in neural drive to calf muscles during steady submaximal contractions after repeated static stretches. *The Journal of Physiology*, 599(18): 4321-4336.

Skills

Technical: MATLAB, R Studio, Protein Deamination, Western Blotting, ELISA, DEXA Collection and Analysis, Surface EMG Collection and Analysis

Communication: Public Speaking, Leadership, Organization