

Ruth Dessie

## Fursca summer research report

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My name is Ruth Dessie, and I am a rising junior at Albion College pursuing a double major in Kinesiology and Cell & Molecular Biology. This summer, I had the opportunity to conduct research through the FURSCA program under the guidance of Dr. Dillon and in collaboration with Dr. Farrow. My project explored the effects of combining static stretching and slow-velocity, low-intensity resistance training (SVLIRET) on cardiovascular and muscular health in older adults with elevated or high blood pressure. The primary goal was to determine whether this gentle, accessible form of training could lead to improvements in blood pressure, aortic stiffness, muscular strength, flexibility, sleep quality, and mood perception in individuals aged 65 to 80. We hoped to develop a low-risk intervention that could enhance quality of life and support healthier aging.

Over the summer, we successfully recruited 10 eligible participants and completed baseline screening measures such as height, weight, blood pressure, fasting blood sugar, and handgrip strength. Participants were assigned to either a stretching program or a combination of SVLIRET and stretching, conducted three times per week over a four-week period. While we are still in the process of data collection, early observations are encouraging. Participants have reported feeling more flexible and confident in their physical abilities, and we are beginning to see trends suggesting potential improvements in both mood and strength. Although our original goal was to enroll 28 participants, the strict inclusion criteria limited recruitment more than anticipated. However, this allowed us to focus deeply on protocol refinement and participant engagement, laying the foundation for continued progress during the academic year.

This project will continue into the fall as part of my senior honors thesis. I plan to present our findings at the Elkin R. Isaac Student Research Symposium, the 2025 Midwest ACSM Conference in Grand Rapids, and potentially the 2026 ACSM Annual Meeting in Salt Lake City. I also intend to present at MidSURE at Michigan State University in July. The hands-on nature of this work has deepened my understanding of clinical research and given me practical skills in data collection, analysis, and working directly with participants. It has shown me how to stay flexible and committed in the face of challenges, which I know will be vital in my future career as a physician assistant.

I am deeply grateful to FURSCA and the donors whose generosity made this experience possible. Being able to carry out research I care about, with real-life implications for older adults, has been both meaningful and motivating. This summer has given me the space to grow academically and personally, and I am truly thankful for the opportunity.