NDSU NORTH DAKOTA STATE UNIVERSITY

North Dakota Senate Appropriations – Education and Environmental Committee

8:30 a.m. January 21, 2025 in Bismarck, ND

TESTIMONY OF:

Ryan McGrath, PhD, NDSU Associate Professor of Health, Nutrition, and Exercise Sciences

EXAMINING THE ROLE OF A HONEY-POMEGRANATE SUPPLEMENT ON HEALTH MARKERS IN OLDER ADULTS: A PILOT STUDY

Chairman Sorvaag and members of the North Dakota Senate Appropriations – Education and Environmental Committee, thank you for the opportunity to provide testimony today for SB 2003. My name is Dr. Ryan McGrath and I am an Associate Professor in the Department of Health, Nutrition, and Exercise Sciences at North Dakota State University. I am also proud to be a Principal Investigator supported by the University Research Collaboration Program.

The older adult population in North Dakota and the United States is rapidly growing. Specifically, by the year 2030, approximately 1 in 5 Americans will be an older adult, and in North Dakota, about 30% of adults will be aged at least 60-years. Moreover, the average age of farmers and ranchers in North Dakota is approximately 57 years. With this quick elevation in the older adult demographic comes many unique healthcare needs for addressing the large proportion of older adults living with chronic diseases and functional limitations that restrict their quality of life, health, and longevity.

Our lab, which is titled Healthy Aging North Dakota, is committed to research for the prevention and treatment of age-related disease and disability. For this study, we partnered with Asozo Health Sciences, a pioneering science-based start-up from the Fargo area, dedicated to merging agriculture, science, and manufacturing to develop healthy foods and supplements for preventative and therapeutic medicine. Our focus for this work was honey and pomegranate for health given the antioxidant characteristics of these foods, and the fact that North Dakota is the top honey producing state in the nation. Preliminary findings from our study suggest markers of blood pressure and rate of muscle force development may benefit from such supplementation.

Apart from the potential continued collaboration with Asozo Health Sciences and economic stimulus implications related to possible value-added agriculture and manufacturing in North Dakota from this work, the collaborations we built with University of North Dakota to gain clinical perspectives for our project, Mayville State University for assessment of honey antioxidant activity, and North Dakota State College of Science for nutritional insights may prove beneficial for future projects. In addition, student representation in the project serves as a model for providing research opportunities for first generation students, and helping students transition from 2-year to 4-year institutions. We overall have provided rich learning experiences and will support healthcare workforce needs in North Dakota related to aging and health such as registered dietitians.

Our project has made great progress, and we are entering the later stages which may include scientific publication. I have gratitude for the many experiences and opportunities that this project has provided, and support the Economic Diversification Research Funds.