Obesity and type 2 diabetes (T2D) are major public health challenges that disproportionately impact Latino children and adolescents. T2D develops when the body doesn't produce enough insulin to keep glucose levels in balance. Inflammation is thought to be related to the development of T2D in obese youth with prediabetes. Lifestyle intervention can reduce inflammation but the effects on specific pro- and anti-inflammatory markers associated with T2D risk in youth has not been adequately investigated.

Armando Peña, a PhD student in the Exercise and Nutritional Sciences program and trainee in the Center for Health Promotion and Disease Prevention, was awarded an F31 - Ruth L. Kirschstein National Research Service Award from the National Institute of Diabetes and Digestive and Kidney Disease at NIH. This project, titled “Inflammatory mediators and beta-cell function among obese Latino youth with prediabetes,” will explore the impact of lifestyle intervention on pro- and anti-inflammatory mediators and the relationship between changes in these mediators and changes in T2D risk. Understanding these specific mechanisms will guide future intervention studies for Latino youth with obesity and other high-risk populations.

“These grants are impossible to secure without a great team, so I’m grateful for the people within our lab and across ASU (shout out to the RISE team!) who provide the infrastructure to build strong applications,” stated Peña. “I’m super stoked to continue my clinical research training under great mentors that push me to be rigorous in my scientific approach and build upon ongoing work that will enhance my competitiveness as a post-doctoral applicant.”

Armando’s development as a clinical researcher is fostered by a transdisciplinary team that includes Dr. Gabe Shaibi from the Edson College of Nursing and Health Innovation, Drs. Sonia Vega-López and Dorothy Sears from the College of Health Solutions, and Dr. Micah Olson from Phoenix Children’s Hospital.

This grant will advance Armando’s research, leadership, and network as he works to advance science as well as improve the health of a high-risk and underserved population of youth.

Congratulations to Armando and the entire team for securing this prestigious award!