# Women are more likely to die while on the waitlist for a liver transplant: Discovery of a novel marker to adjust for sex-based differences in donor liver distribution



#### University of Colorado Denver | Anschutz Medical Campus

Presenting Nathaly Limon-de la Rosa Principal investigator Nalu Navarro-Alvarez

### Key concepts

- **Cirrhosis** is a condition in which your liver is scarred and permanently damaged. Scar tissue replaces healthy liver tissue and prevents your liver from working normally.
- There are 2 clinical stages of cirrhosis: compensated and decompensated
- Compensated cirrhosis is the asymptomatic stage
- Decompensated cirrhosis is the <u>symptomatic</u> stage
- Liver transplant is a surgery to remove your diseased or injured liver and replace it with a healthy liver from another person, called a donor.

### Background

In 28 U.S. states, females had more than a 10% lower transplant rate than males.

#### Number of Transplants in Colorado



- Women with cirrhosis have higher waitlist mortality compared with men and sex-based disparities have increased over the last decade.
- Non-invasive markers that adjust for sex-based differences are needed to equilibrate transplantation rates.

Our previous studies show a protein, **galectin-3**, has higher levels in cirrhotic patients. Here we propose to use **galectin-3** as a novel **marker to adjust for sexbased differences** in liver damaged patients.



### Results

• Circulating levels of galectin-3 are higher in women compared to men.



• Galectin-3 is higher in women with a more advanced stage of cirrhosis



## Conclusion

Galectin-3 is different based on patient sex and could be used as a compensatory parameter for women on the liver transplant list.

## How did we do it?