

# Effects of Instant Cascara Beverage and Purified Diets on Gastrointestinal Motility in Male and Female Rats

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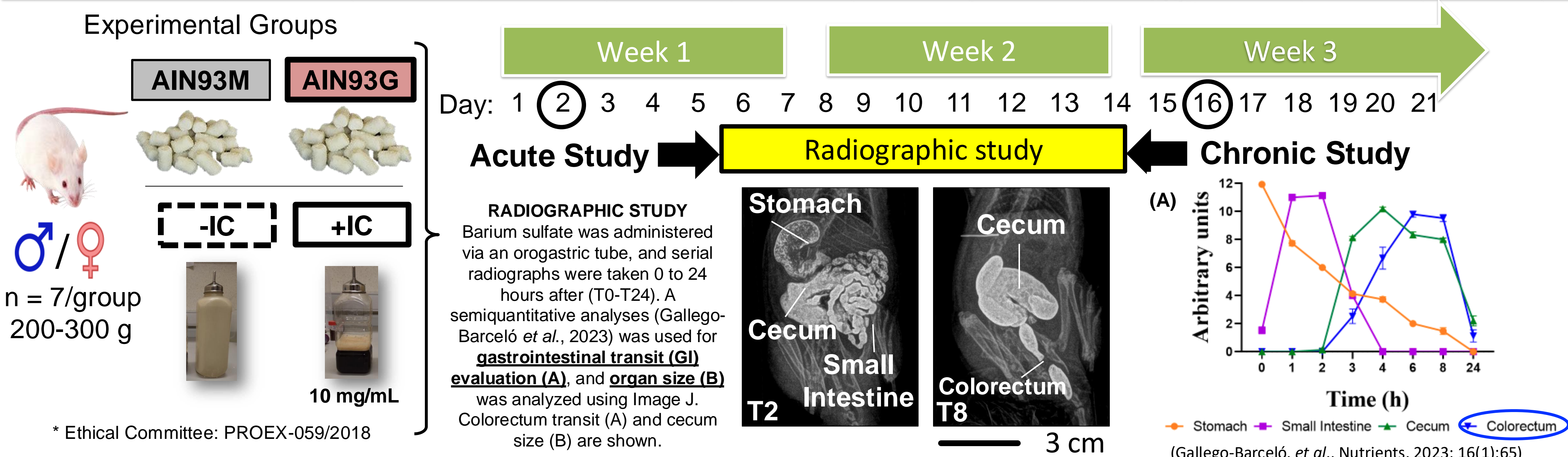
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## INTRODUCTION & AIM

**Instant Cascara (IC)** is a sustainable beverage made from dried coffee cherry pulp, enriched with nutrients and bioactive compounds. This study evaluated its effect on gastrointestinal transit in experimental animals of both sexes, exposed to the **AIN93M** and **AIN93G** purified diets, which differ mainly in their fat content: AIN93M, designed for the maintenance of adult animals, contains 4% soy oil and AIN93G, formulated for growing animals, 7% soy oil. **AIN93G diet** has been suggested to induce irritable bowel syndrome with constipation (**IBS-C**) in **male rats** (Mosinska *et al.*, Neurogastroenterol Motil. 2019; 31(9): e13651).

## METHODS

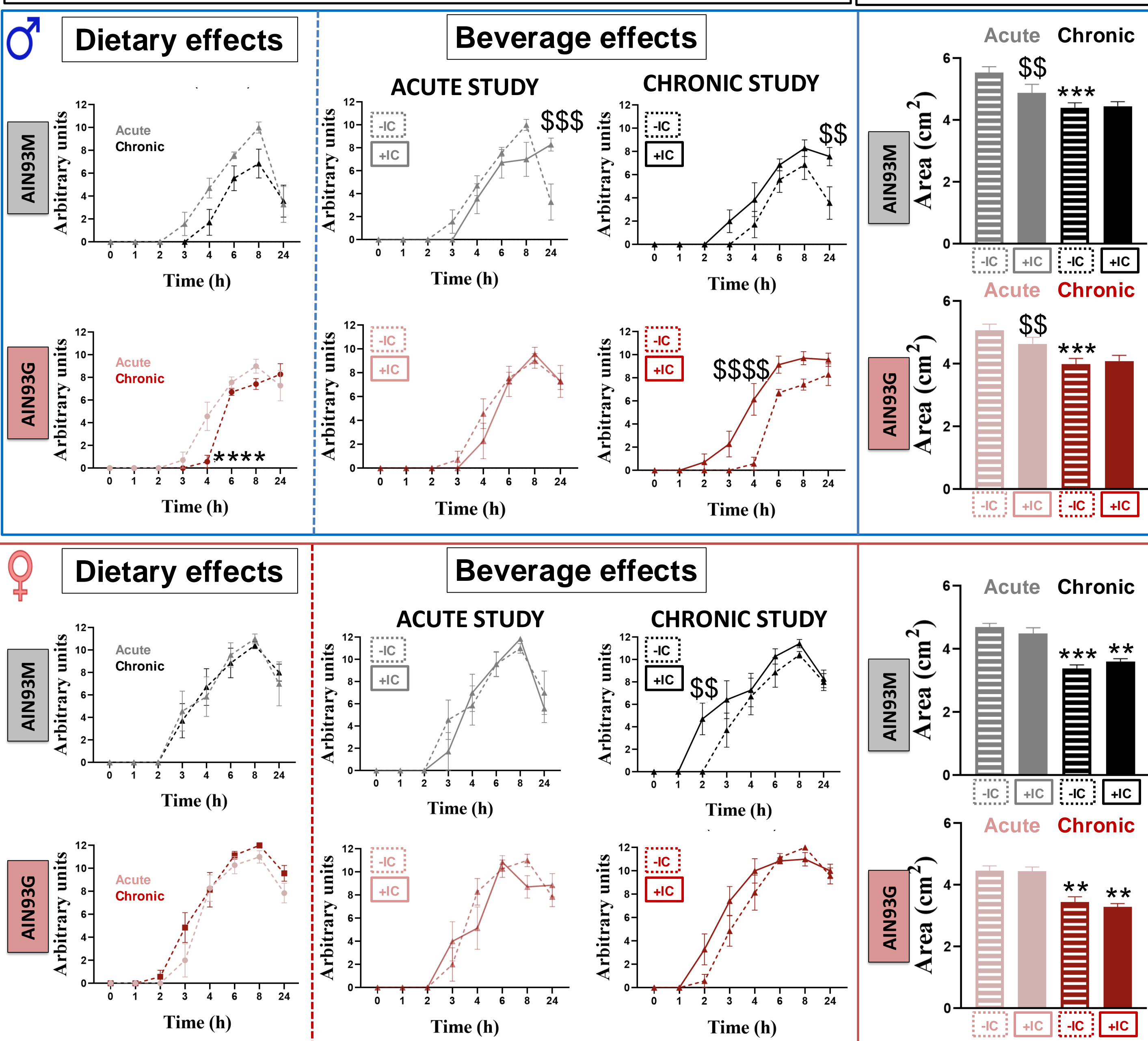


## RESULTS

### (A) Gastrointestinal Transit: Colorectum

### (B) Cecum Size

**Statistical analysis**  
Line graphs: two-way ANOVA followed by Tukey post-hoc test.  
Column graphs: one-way ANOVA followed by Tukey post-hoc test.  
\* p<0.05 vs acute \$ p<0.05 vs -IC



## CONCLUSIONS

- ✓ Chronic exposure to AIN93M did not significantly alter colonic transit in either sex.
- ✓ In animals fed AIN93M, IC significantly increased colonic fecal retention in males at the end of the acute and chronic studies and accelerated colonic transit in females in the chronic study.
- ✓ Chronic exposure to AIN93G significantly delayed colonic transit in males (but not in females).
- ✓ IC counteracted this effect.
- ✓ Cecum size was reduced by chronic exposure to both diets in both sexes
- ✓ IC did not counteract this effect.
- ✓ IC significantly reduced cecum size in males (but not females) fed either diet for 24 h

Our results suggest a potential beneficial effect of IC in the clinic, at least in males, to prevent or alleviate disorders characterized by delayed intestinal transit.

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