

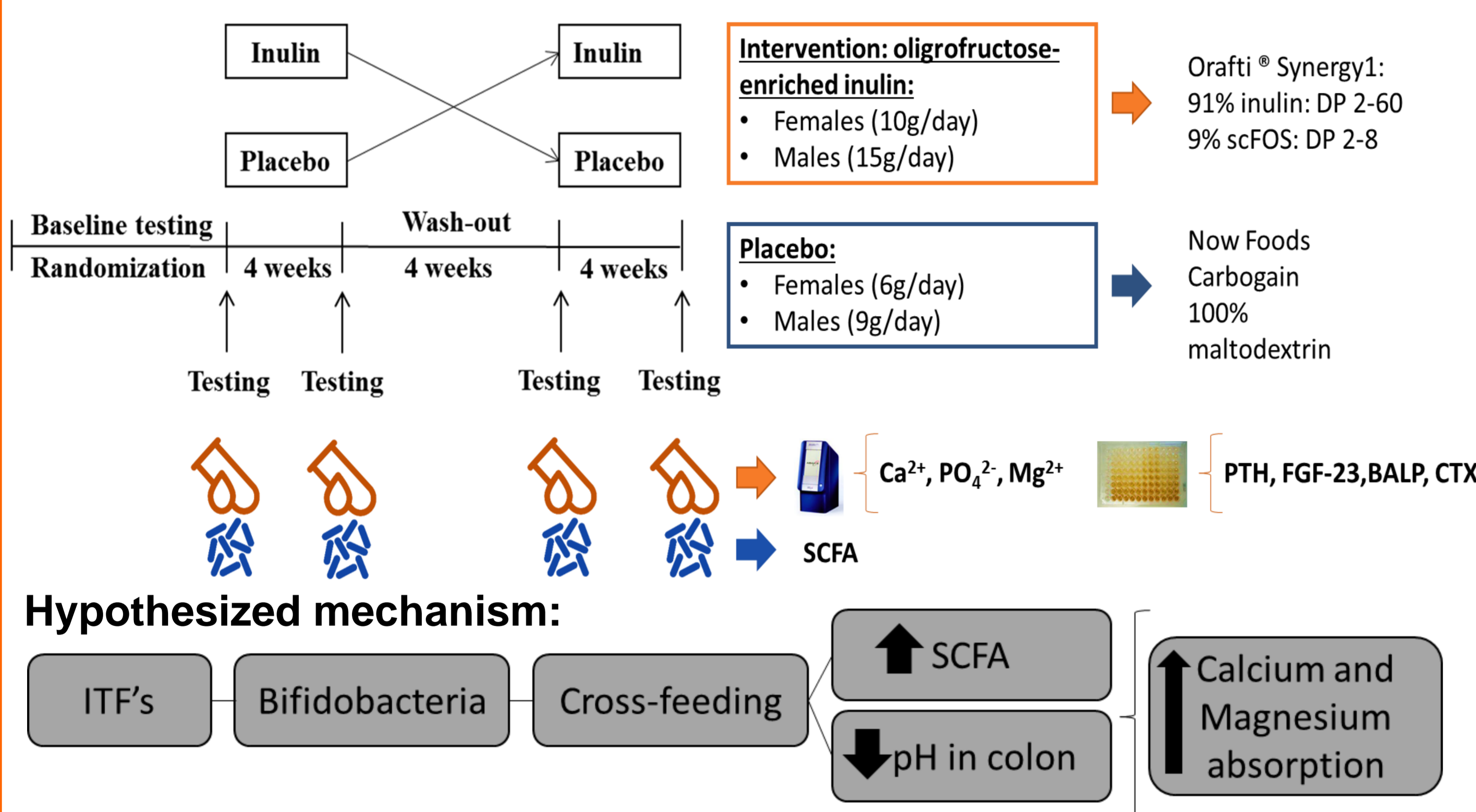
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## Background and Objective

Mineral and bone disorder (MBD) is highly prevalent among hemodialysis (HD) patients and is associated with increased morbidity and mortality. The supplementation of inulin-type fructans (ITF's) may lead to an enhanced absorption of minerals mediated by the production of short-chain fatty acids (SCFA) by the gut microbiota, which has benefited other populations with MBD. However, this mechanism remains unexplored in HD patients. **Our objective was to examine the effect of a 4-week supplementation of inulin on blood minerals, biomarkers of mineral and bone metabolism, and fecal SCFA in HD patients.**

## Methods



## Table 1. Patient characteristics

Variable	Mean ± S.E.M.
Age (years)	56 ± 9
Gender (M/F)	6/6
African American (%)	58.3%
BMI (kg/m <sup>2</sup> )	31.06 ± 2.58
Diabetes (%)	46%
Albumin (g/dL)	3.27 ± 0.27
Corrected calcium (mg/dL)	8.85 ± 1.32
Phosphorus (mg/dL)	5.98 ± 1.54
Magnesium (mg/dL)	2.20 ± 0.30
Intact PTH (pg/mL)	502.73 ± 301.52

Figure 1. Four weeks of inulin supplementation did not alter plasma calcium, phosphorus, or magnesium

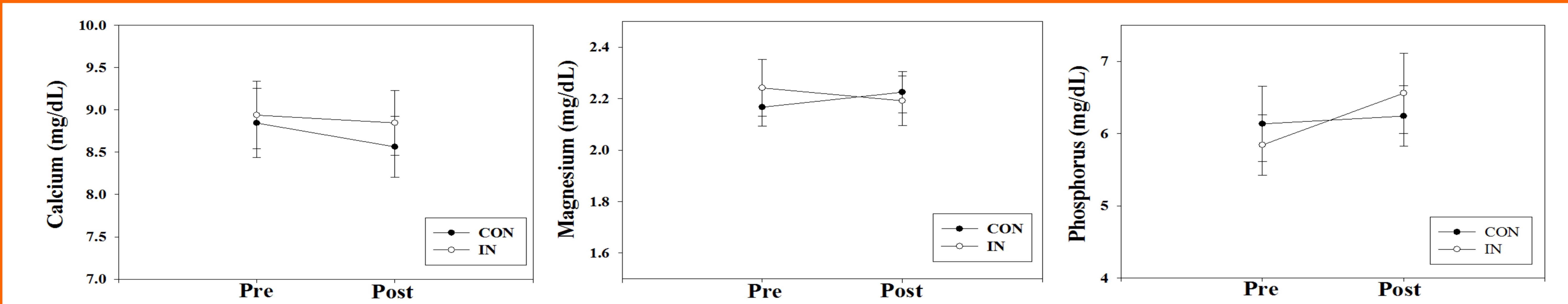


Figure 2. Four weeks of inulin supplementation did not change mineral and bone biomarkers

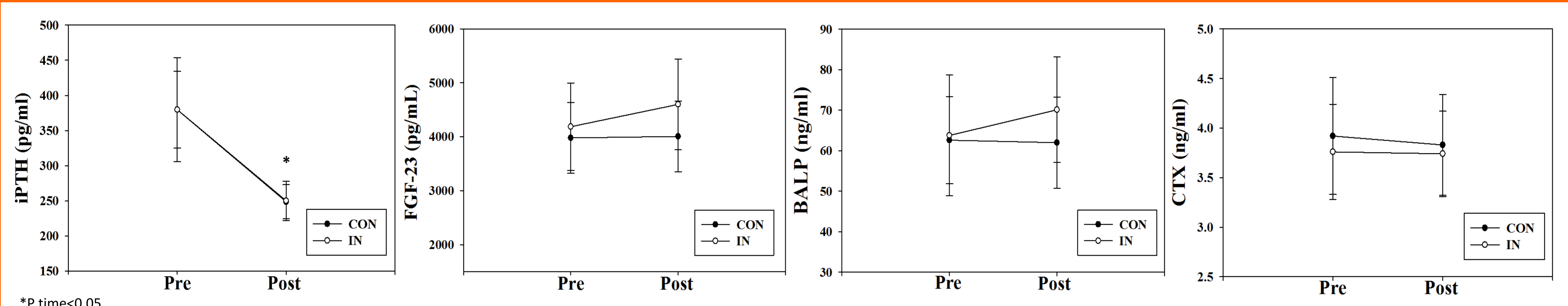
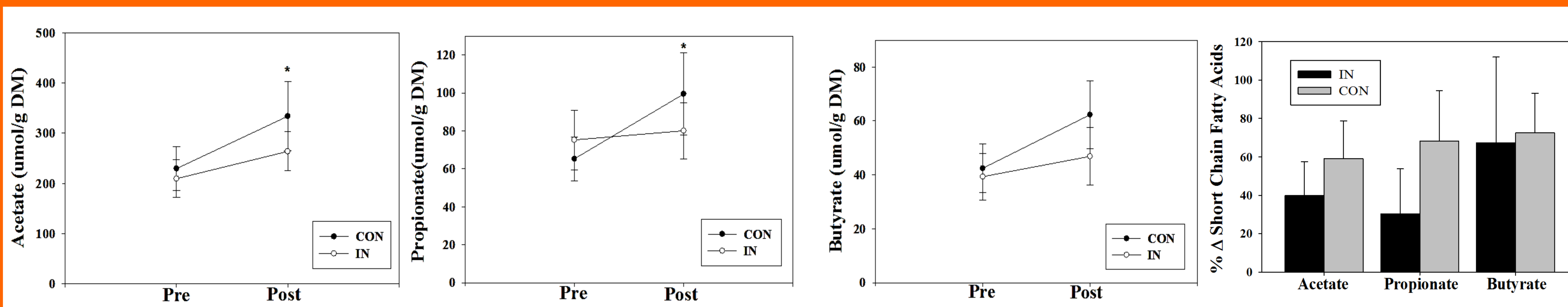


Figure 3. Four weeks of inulin and maltodextrin increased excretion of acetate and propionate, but not butyrate



## Conclusions

- 4-week supplementation of IN did not produce significant changes in plasma levels of blood minerals or biomarkers of MBD
- Contrary to our hypothesis, there was also no increase in fecal excretion of SCFA with IN supplementation and both, IN and CON, had a higher excretion of acetate and propionate after maltodextrin

## Acknowledgements

- We would like to thank the Champaign-Urbana dialysis units for their continuous support

