

# MICROBIAL PRODUCTION OF ESSENTIAL AND TOXIC COMPOUNDS AMONG OAT-USING CED AND NCGS SUBJECTS

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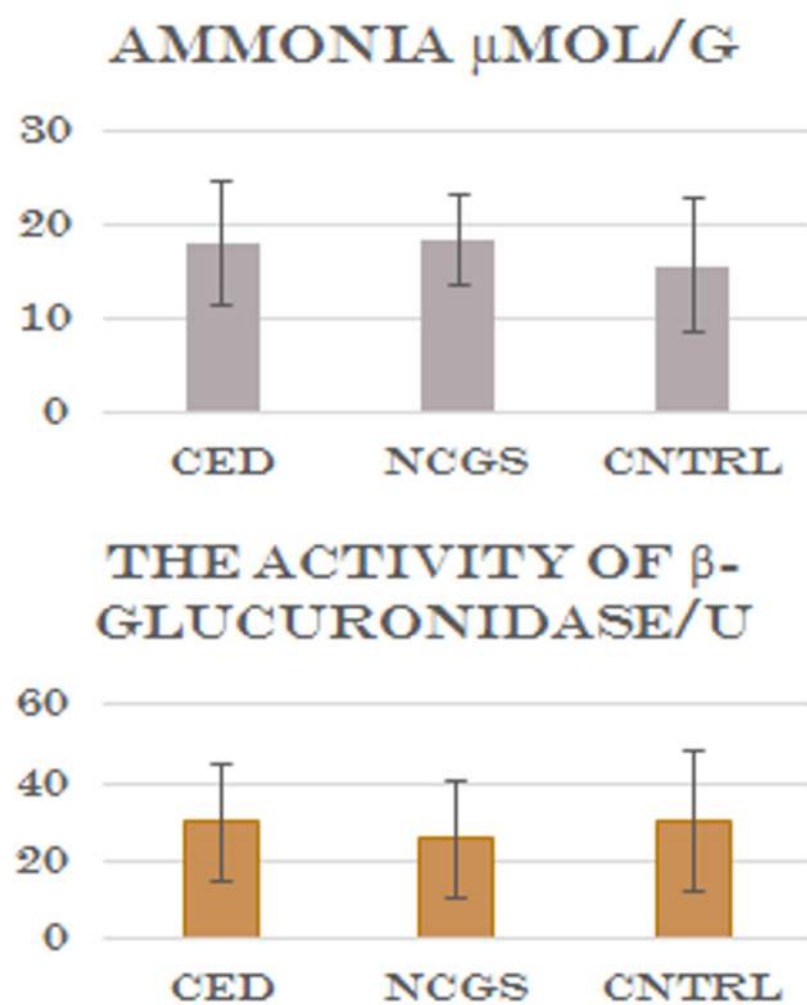
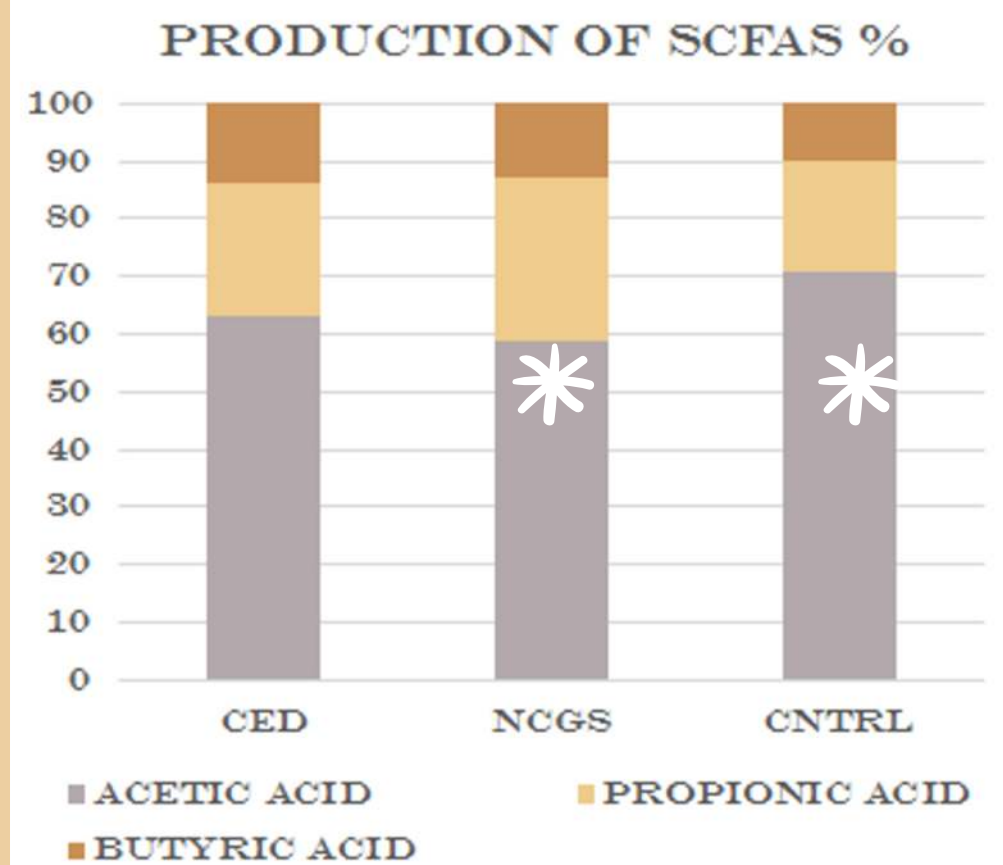


## OATS & GLUTEN RELATED DISEASES

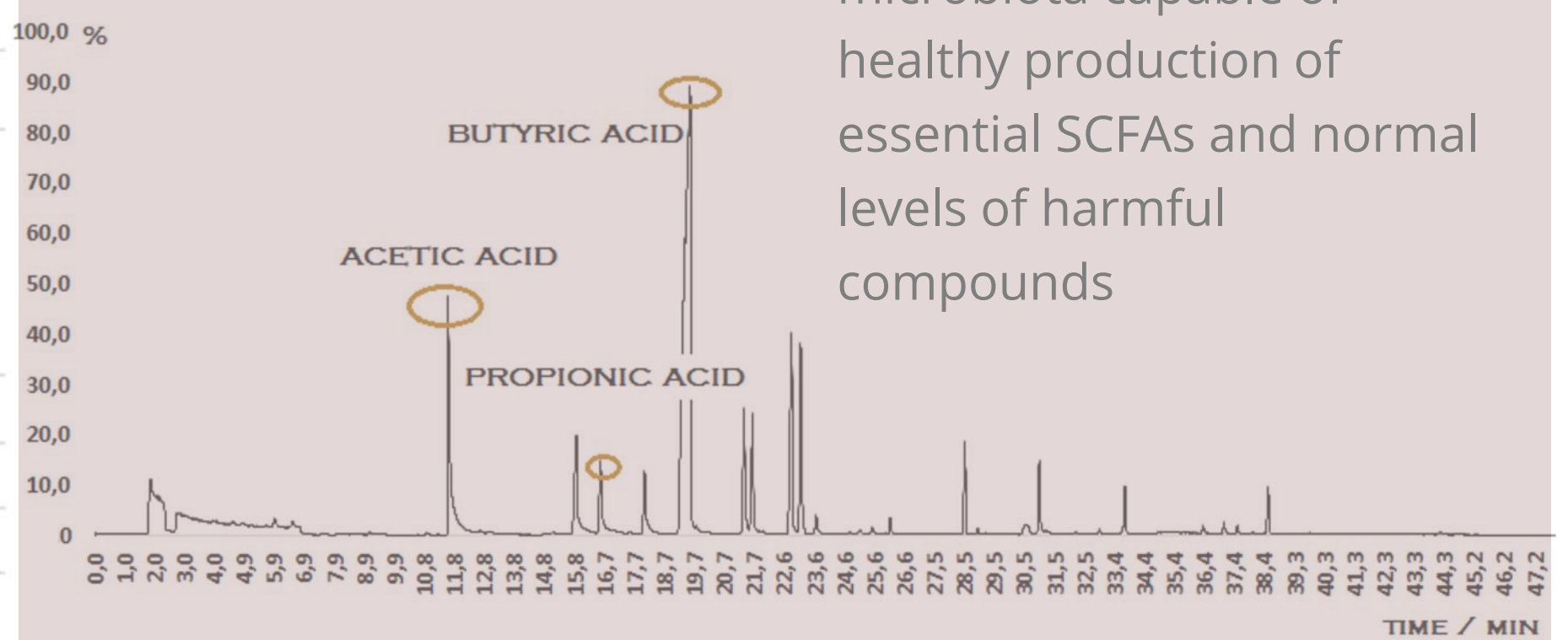
- Gluten related diseases have generalized, and they may be associated with unbalanced microbiota
- Gluten-free oats: crucial source of fiber and nutrients
- Fiber promotes the growth of gut microbiota and the production of essential compounds, such as short chain fatty acids (SCFAs)
- Oat-using celiac disease (CeD) and gluten sensitive (NCGS) subjects compared to healthy controls: comparison of microbial production of SCFAs and harmful metabolites?

## MATERIALS & METHODS

- SCFAs by SPME-GC-MS
- Ammoniacal nitrogen by indophenol-blue, spectrophotometer
- $\beta$ -glucuronidase activity by reaction with *p*-nitrophenyl- $\beta$ -D-glucuronide, spectrophotometer



## RESULTS



- Oat-using CeD and NCGS subjects have a gut microbiota capable of healthy production of essential SCFAs and normal levels of harmful compounds