

## CONCLUSIONS

- Lactobacilli are most common and illustrative organism usually that falls under GRAS classification, predominant in most fermented foods. Therefore, it becomes mandatory to address its consequences on removing non-digestible oligosaccharides during preparation of pulse product by adding different lactobacilli strain.
- This work enabled us to confirm the suitability of pulses fermentation by effectively reducing raffinose family of oligosaccharide practically, by using synthetic medium with modified components. Reduction of these carbohydrates was well observed and  $\alpha$ -galactosidase enzyme was efficiently produced.
- Therefore from this study, results showed easy adaptation of lactobacilli in different environment and successful reduction of complex carbohydrates in to simple form.
- Further, optimization of medium for maximum lactic acid production allowed us to obtain concentration of LA up to 6.30 g/l. pH, nitrogen source like yeast extract, carbon source i.e. pulses beans were such factors that influenced LA production in best production medium especially when pulses are considered.
- Lastly, evaluation of anti-nutrient in processed beans, expressed that fermentation increase significant reduction of saponin and tannins. However, soaking, dehulling and roasting managed to lower the concentration of anti-nutrient. The highest loss of anti-nutrient occurred between 24 to 36 h of fermentation.
- Hence, pulse-based fermented food provides a good opportunity to develop a cost effective functional food rich in nutrition.