Materials and methods

Materials
- gentleMACS Dissociator or gentleMACS Octo Dissociator
- gentleMACS M Tubes
- Incubator (37 °C)
- Laminar flow hood
- Analytical balance
- Blood agar
- Tryptic soy agar
- Phosphate-buffered saline (PBS)

Methods
1. Remove mouse spleen, liver, or mesenteric lymph nodes under sterile conditions.
2. Transfer the tissue into a preweighted gentleMACS M Tube containing 2 mL of PBS.
3. Tightly close the M Tube and attach it upside down onto the sleeve of the gentleMACS Dissociator.
4. Run the gentleMACS Program RNA_01.
5. Weigh out M Tube to determine tissue weight.
6. Perform serial dilution of homogenates and plating onto blood or tryptic soy agar. Incubate at 37 °C for 48 hours.
7. Determine CFU/g of tissue.

This protocol describes the procedure to analyze colonic bacteria translocation using the gentleMACS™ Dissociator.
Results

In the present study, it has been demonstrated that IL-33 has extenuating effects in chronic DSS-induced colitis. Excessive Th1-directed cytokine responses are shifted toward Th2-like immune reactions and general inflammation parameters are reduced. IL-33–induced neutrophil influx during chronic inflammation reduced translocation of pathogenic bacteria across damaged epithelium.

Conclusion

Analysis of colonic bacteria translocation can be accomplished with ease using the gentleMACS Dissociator.

Reference