

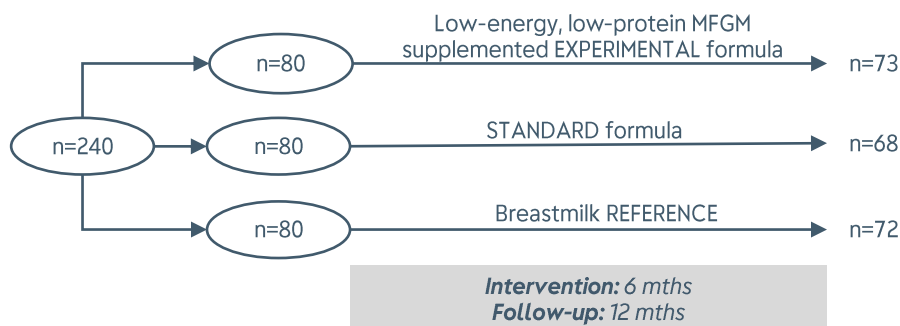
# Fecal microbiome and metabolome of infants fed bovine MFGM supplemented formula or standard formula with breast-fed infants as reference: a randomized controlled trial

He, X., Parenti, M., Grip, T. *et al. Sci Rep* 9, 11589 (2019).

**Objective:** To provide a mechanistic explanation regarding the influence of MFGM on gut microbiota, fecal microbiome and metabolome

### Inclusion Criteria

- Infants less than 2 months of age
- Gestational age at birth of 37-42 weeks
- Birth weight of 2.5-4.5kg
- Absence of chronic illness
- Exclusively breast fed or formula fed



ENDPOINTS	FINDINGS (Experimental formula vs Standard formula)
Gut microbiome	<ul style="list-style-type: none"> <li>• No significant difference</li> </ul>
Fecal Metabolome	<ul style="list-style-type: none"> <li>• Impact of MFGM is moderate;</li> <li>• Significant reduction in metabolites such as lactate, succinate, amino acids and their derivatives from that of control</li> </ul>

**Conclusion:** Higher levels of protein in infant formula and lack of human milk oligosaccharides promote a shift towards amino acid fermentation in the gut. Hence, MFGM plays a role in shaping gut microbial activity and function