

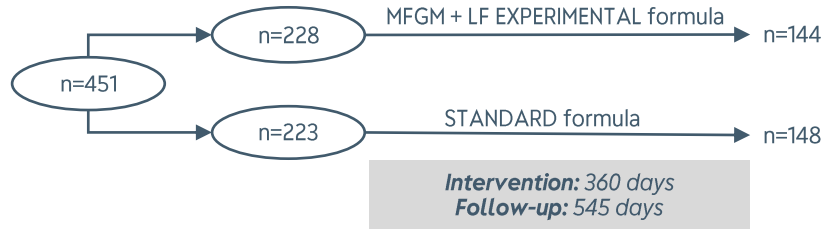
# Improved Neurodevelopmental Outcomes Associated with Bovine ilk Fat Globule Membrane and Lactoferrin in Infant Formula. A Randomized Controlled Trial

Li F, Wu SS, Berseeth CL, Harris CL, Richards JD, Wampler JL, Zhuang W, Cleghorn G, Rudolph CD, Liu B, Shaddy DJ, Colombo J. J Pediatr. 2019 Dec;215:24-31.e8.

**Objective:** To evaluate neurodevelopment, growth and health outcomes in infants receiving bovine milk fat globule membrane (MFGM) and lactoferrin (LF) in infant formula

**Inclusion Criteria:**

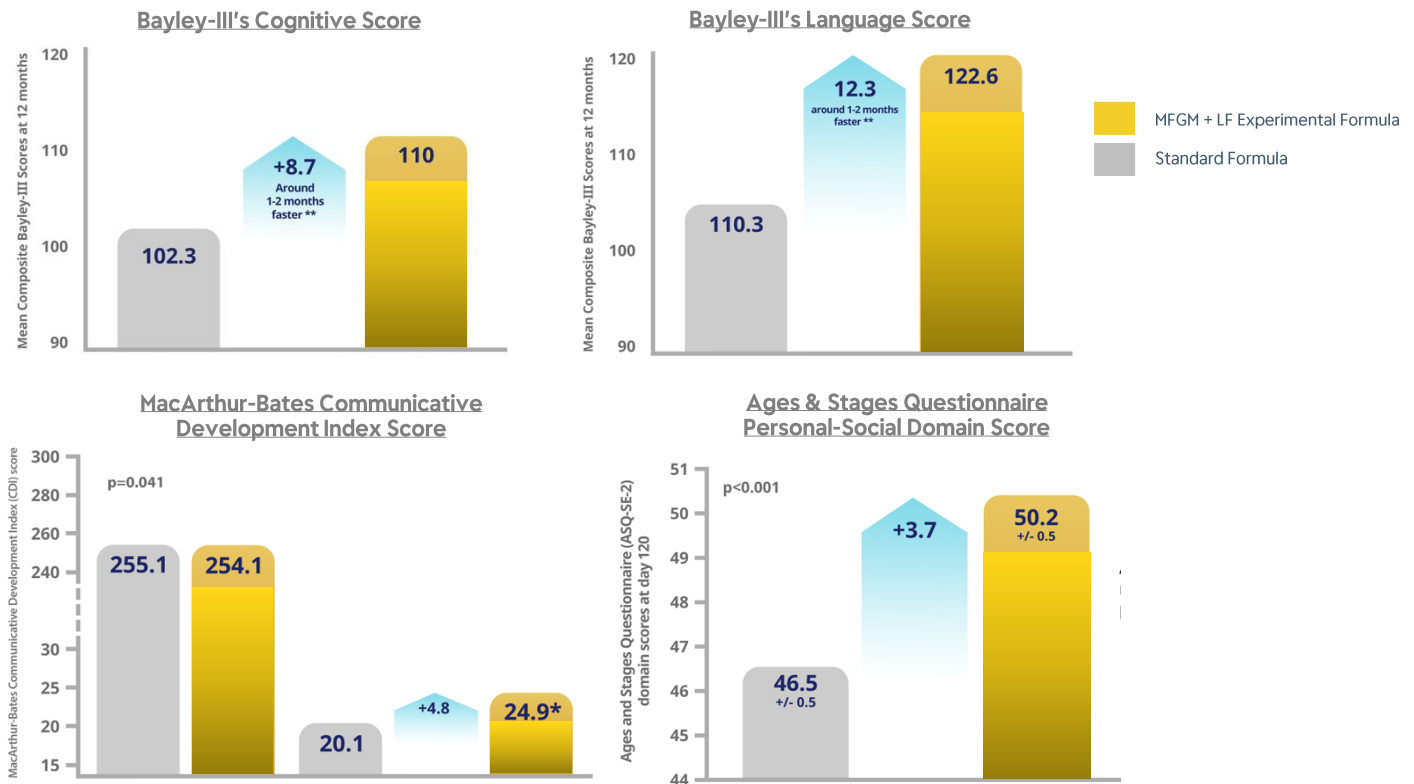
- 10-14 days old
- Exclusively formula fed for at least 3 days before randomization
- Singleton birth
- Gestational age of 37-42 weeks
- Birth weight of 2500-4000 g
- Signed informed consent
- Parent or guardian of infant agrees not to enrol infant in another interventional clinical research study while participating in this study



**Exclusion Criteria**

- Infants with chronic illness
- Evidence of feeding difficulties or formula intolerance
- Weight at visit 1 is < 95% of birth weight
- Infants is immunocompromised.

ENDPOINTS	FINDINGS (MFGM+LF Experimental vs Standard Formula)
<b>Neurodevelopment</b>	<ul style="list-style-type: none"> <li>• Bayley-III: Higher mean <b>cognitive, language</b> and <b>motor</b> scores</li> <li>• Ages &amp; Stages Questionnaire (ASQ) score: Higher <b>personal-social</b> score</li> <li>• Communication Development Index (CDI): Higher <b>language</b> scores</li> </ul>
<b>Safety &amp; Tolerance</b>	<ul style="list-style-type: none"> <li>• Lower incidence of <b>respiratory and gastrointestinal</b> associated <b>adverse events</b></li> <li>• No difference in <b>stool</b> characteristics (frequency &amp; consistency)</li> </ul>
<b>Growth</b>	<ul style="list-style-type: none"> <li>• No difference in <b>weight</b> and <b>weight-for-length</b> (up to 545 days)</li> </ul>



**Conclusion:** Infant receiving formula with added bovine MFGM and bovine lactoferrin had

- Accelerated neurodevelopmental profile at day 365 and improved language at day 545
- Significantly fewer diarrhea and respiratory associated adverse events through 545 days of age.
- Age-appropriate growth