



ASEAN NUTRITION DAY

Organised By:



Mead Johnson
PEDIATRIC NUTRITION
INSTITUTE

The Manufacture and Supplementation of Milk Fat Globule Membrane (MFGM)



Infant formula targets to mimic human milk.

Complex lipids could be sourced during dairy processing



A clean pharmacokinetics and pharmacodynamics on MFGM as a whole is not feasible.

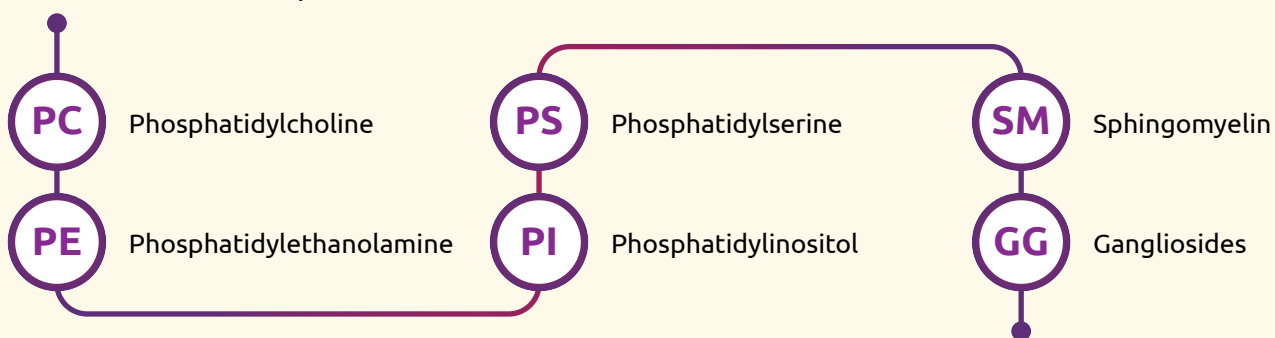
- Individual MFGM components could be traced.
- MFGM lipid components do not appear to be absorbed intact but instead broken down, absorbed, metabolised and then resynthesized.
- MFGM protein components are digested in the GI tract.



Complex lipids in cow's milk and human breastmilk share a high degree of similarities.

Spingomyelin is used as a biological marker for MFGM

- MFGM with its matrix of complex lipids and proteins could not be measured in its entirety.
- Individual MFGM components could be measured:-



Infant formulas quantify MFGM using spingomyelin as a marker

- **MFGM is the predominant source of spingomyelin.**
- Other phospholipids (PC, PE, PS, PI) may come from vegetable oils, commonly used as source of fats in infant formulas.
- Reasonable knowledge of absorption and distribution of spingomyelin.
- Known human milk reference level of spingomyelin.



Frequently Asked Questions
Milk Fat Globule Membrane (MFGM)

Scan the QR code to find out more.

*All content has been provided by **Key Opinion Leaders** in the area **Milk Fat Globule Membrane** as a part of Mead Johnson (Asia Pacific) Pte Ltd's medical education initiatives