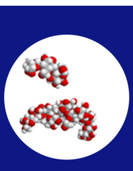


# Immune modulating capacity of prebiotics in allergy

Allergic conditions have been on the rise over the past decades in the pediatric population. Allergic march is a term referring to infant allergic conditions being progressed to atopic dermatitis, allergic rhino conjunctivitis, and ultimately asthma. Of the numerous approaches suggested to prevent allergic march, early modification of gut microbiota has been seen as a promising preventive approach[1]

The intestinal microbiota is a part of a complex ecosystem and plays a vital role in the development of the immune system after birth.[2]

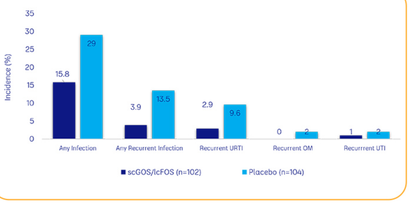
Breast milk consumption for the first 6 months is considered as the gold standard for prevention of allergies and related morbidity and mortality in infants. Breast milk helps prevent allergies due to the presence of bioactive compounds and Human Milk Oligosaccharides (HMOs), which support healthy gut microbiota (rich in bifidobacteria and lactobacilli)[1,3]

Prebiotic mixtures (e.g., short- and long-chain oligosaccharides) have been developed to emulate HMOs in formula-fed infants, to establish a gut microbiota similar to breastfed infants and reducing the risk of allergies and infections.[3]

## Sertac Arslanoglu has conducted several studies on the effects of prebiotics on allergies in infants. Here are some key findings from his research

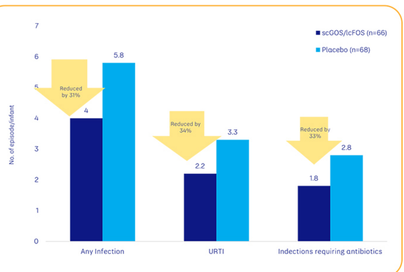
**Test group:**
Prebiotic-supplemented - 8 g/L scGOS/lcFOS

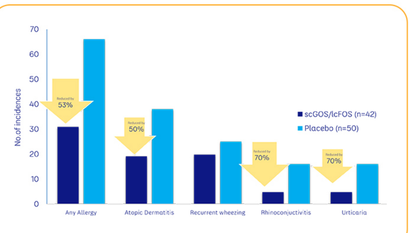
**Control group (Placebo):**
8 g/L maltodextrin




- Prebiotics reduced the number of infectious episodes by almost 2x when supplemented with scGOS/lcFOS
- Prebiotics reduced the incidence of recureent infection or URTI by almost 3x when supplemented with scGOS/lcFOS

- Prebiotics reduced the number of infectious episodes by almost 31% when supplemented with scGOS/lcFOS even after 2 years
- Prebiotics reduced the incidence of recureent infection or URTI by 34% when supplemented with scGOS/lcFOS even after 2 years

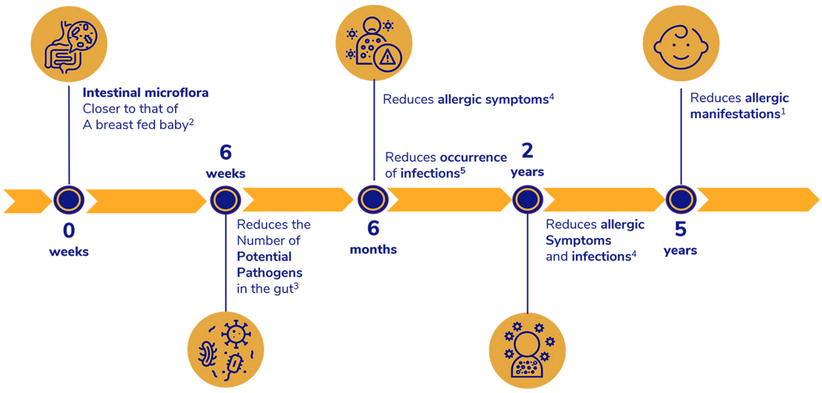



- Prebiotics supplementation reduced chances of Urticaria and Rhinoconjuctivitis by 70% even after 5 years
- Prebiotics supplementation reduced chances of Allergy and AD by 50% even after 5 years

Nutritional interventions in the early years of life with **prebiotic oligosaccharides**, effectively prime infants' immune system, balancing and providing protection against infections and allergies[7]

## Prebiotics provide immediate to long-term benefit




**Reference:**

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