NATURAL MODULATION OF THE GUT MICROBIOTA IN PATIENTS WITH FOOD ALLERGIES. IMPACT OF ALERGIPLANT

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Food allergy is a clinical and public health problem that affects up to 10% of the world's children and 4% of adults, therefore the condition is highly prevalent with the gut microbiota having distinct roles.

In recent years, there has been increasing interest in how dysregulation of resident microbial communities (i.e. dysbiosis) may be associated with food allergy risk.

Gut dysbiosis likely precedes the development of food allergy, and the timing of such dysbiosis is critical.

Gut microbiota may affect food allergy susceptibility by modulating type 2 immunity, influencing immune development and tolerance, regulating basophil populations, and promoting intestinal barrier function.

Herein, we summarized the latest evidence on the gut microbiota profiles and functions associated with food allergy, oral tolerance mechanisms, and gut microbiota-targeted therapeutic strategies for food allergy.

Growing evidence has shown that a healthy gut microbiota contributes to protect against food allergy, whereas disruption of the gut homeostasis (dysbiosis) affects oral tolerance and confers susceptibility to food allergy.

The metabolites produced by the gut microbiota, such as short-chain fatty acids, tryptophan metabolites, and secondary bile acids, have favorable effects on food allergy.

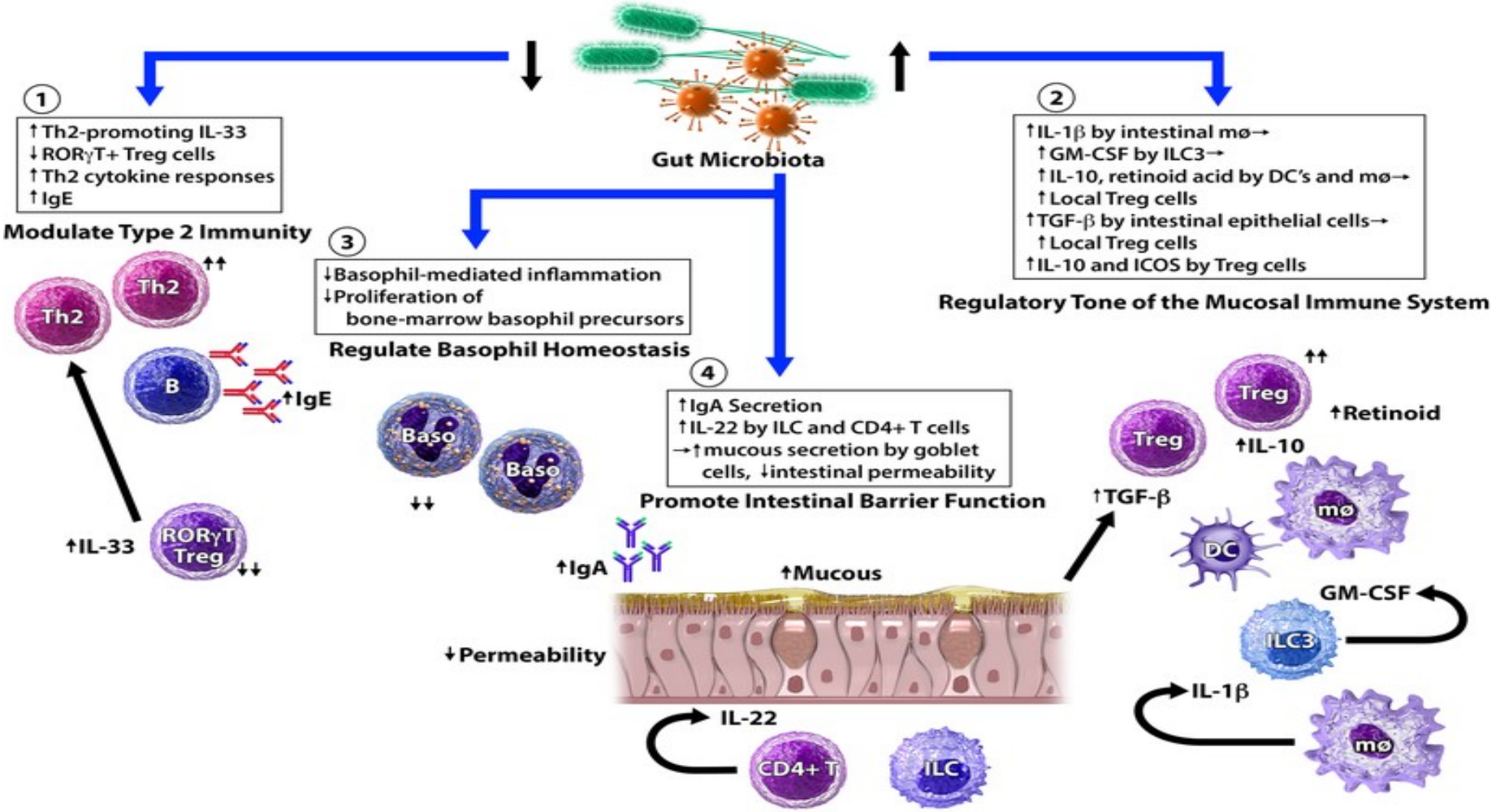
In recent years, subsequent studies have shown that short-chain fatty acids exert multiple protective effects against food allergy.

The link between the microbiota and protection from food allergy is not well understood.

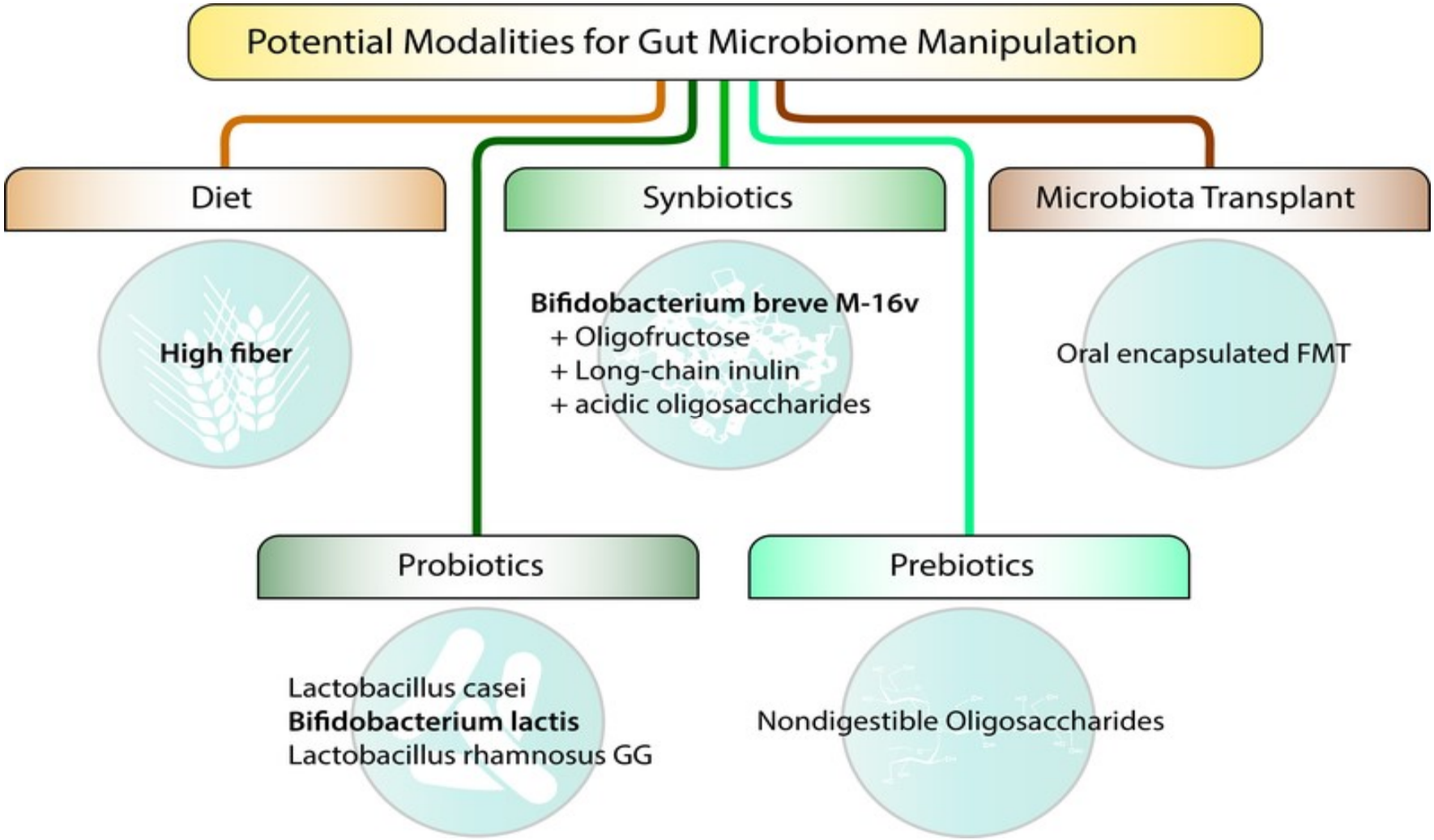
Recent research reveals that the increasing prevalence of food allergies is due in part to changes in the commensal microbiome.

Our understanding of food allergy has been advanced not only by studies of the microbiome, but also by findings from genome-wide association, transcriptome, epigenome, and metabolomic studies of food allergy.

By advancing research on the microbiome in food allergy, we can further our understanding of food allergy and derive new approaches for its prevention and therapy.



Mechanisms by which gut microbiota may affect food allergy susceptibility



Potential modalities for gut microbiome manipulation

Th2/Th1 and Th17/Th1 ratio imbalances cause food allergy.

Food allergy is modulated by intestinal microbiota

Food allergies reflect a hypersensitivity state induced by food allergens.

However, causal relationships between intestinal microbiota and food allergy have indicated how food allergy are regulated by intestinal microbiota.

Dietary composition is also a key factor affecting intestinal microbiota.

The gut microbiome likely plays a role in the pathogenesis and course of food allergy.

Individuals with food allergy have different gut microbiomes compared to healthy controls.

Imbalances in the gut microbial ecosystem precede the development of food allergy, and the timing of such dysbiosis is a key factor.

Studies in humans have shown that compared with healthy controls, individuals have distinct gut microbiomes during the onset and progression of food allergy.

Recent research reveals that the increasing prevalence of food allergies is due in part to changes in the commensal microbiome.

Mechanistic studies have established that the gut microbiota can affect the growth of immune tolerance to food antigens by modifying regulatory T cell differentiation, regulating basophil populations, and enhancing intestinal barrier function.

New therapeutic and preventive approaches to altering the gut microbiota using diet adjustments, probiotics, prebiotics, synbiotics, postbiotics, fecal microbiota transplantation.



Alergiplant tea is a natural immunomodulator of the intestinal and skin microbiota.

It modulates the immune system by increasing the natural reactions of defense and self-healing.

It regulates cellular metabolism, It prevents the formation of mast cells or the release of histamine, It reduces the level of inflammation that accompanies the allergic reaction.

Removing dysbiosis of the gut microbiota can prevent and eliminate complications caused by food allergies.

It contains cultivated medicinal plants and spontaneous flora, fruit tree buds.

Conclusion

Alergiplant is the first study, to our knowledge, to show the change of gut microbiota composition in patients with food allergies

Our results demonstrated that the microbial composition was significantly different between food allergies patients and the healthy individual, which may be the reason leading to the various outcomes of probiotic treatment.

This study suggests that disturbances in the gut microbiome composition and metabolites and their crosstalk or interaction may participate in the pathogenesis of food allergies.

By advancing research on the microbiome in food allergy, we can further our understanding of food allergy and derive new approaches for its prevention and therapy.

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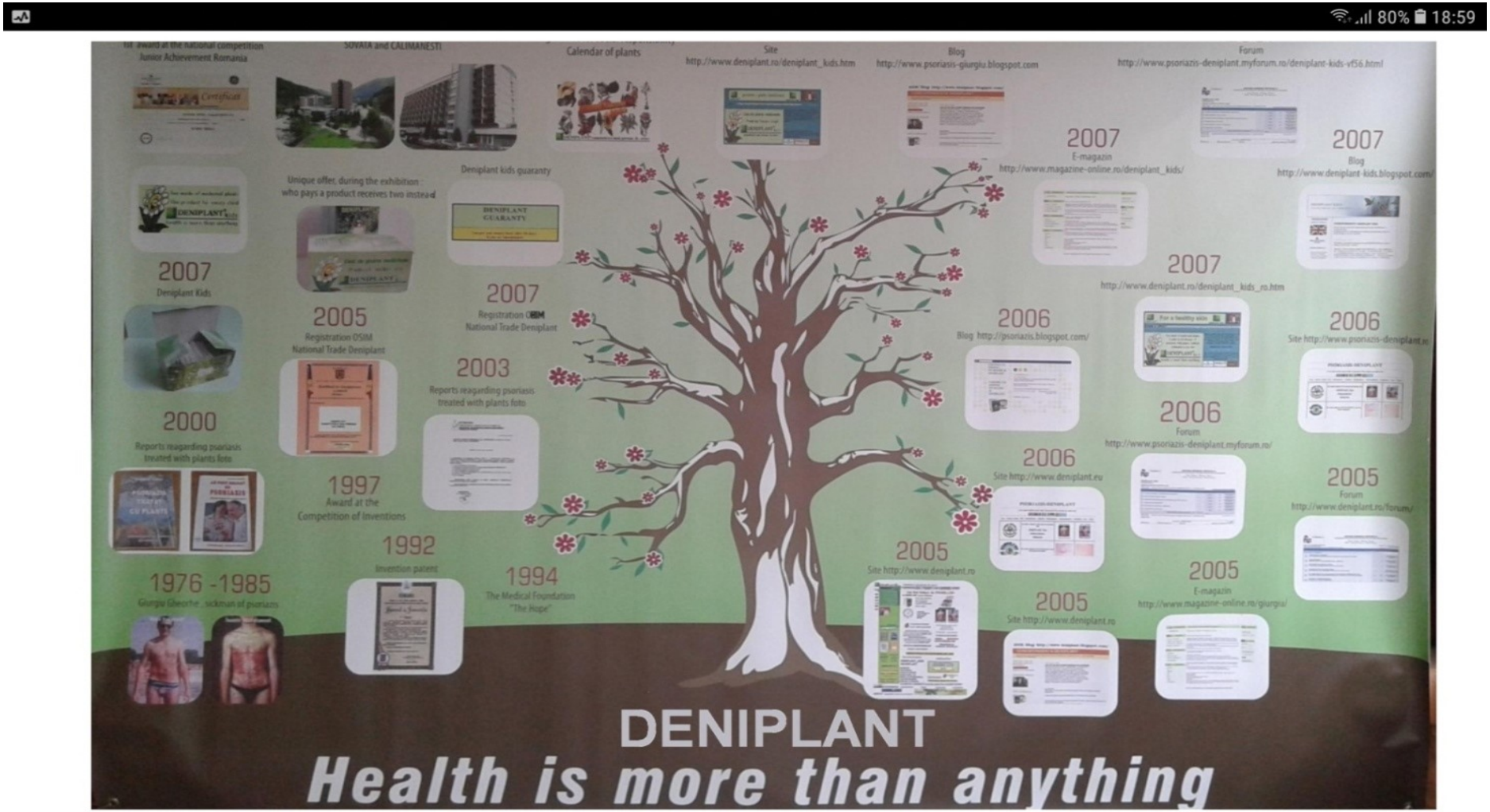
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