Academy of Romanian Scientists *Volume 11, No. 2, 2022, pp. 94-104*
Annals Series on Biological Sciences Online ISSN 2285 – 4177

ORIGINAL PAPER

THE ROLE OF GUT MICROBIOTA IN IMMUNE HOMEOSTASIS

Manole COJOCARU[1], Gheorghe GIURGIU[2]

Abstract. *The microbiota plays a fundamental role in the induction, education, and function of the host immune system. The gut microbiota has such profound effects on both the innate and adaptive immune system. Both environmental factors as well as host genetics influence the composition and homeostasis of gastrointestinal tract microbiome.*
Objectives Understanding the interaction of gut microbes with the host immune system is a timely and important health topic. The purpose of this systemic review was to collect and analyse current data of the association between gut microbiota, immune homeostasis, and Imuniplant in the management of disfunctional immune responses.
Materials and methods In this presentation we will focus our discussion on the exploration of the homeostatic relationship between the host immune system and the microbiota. Imuniplant modulation of the immune system has applications within the clinical setting, but can also have a role in healthy populations, acting to reduce or delay the onset of immune-mediated chronic diseases.
Results Alterations of these gut microbial communities can cause immune dysregulation, leading to autoimmune disorders. Imuniplant may restore the composition of the gut microbiome and introduce beneficial functions to gut microbial communities, resulting in amelioration or prevention of gut inflammation and other intestinal or systemic disease phenotypes, possibly also as a genetic modulator (CARD14 gene).
Conclusion This presentation describes how Imuniplant and intestinal luminal conversion by gut microbes play a role in immune-mediated chronic diseases. Ongoing research in this field will ultimately lead to a better understanding of the role of diet and Imuniplant from Deniplant in immune function.

Keywords: gut microbiota, dysbiosis, immune homeostasis, Imuniplant

DOI https://doi.org/10.56082/annalsarscibio.2022.2.94

[1] Titu Maiorescu University, Faculty of Medicine, Bucharest, Romania
[2] Deniplant-Aide Sante Medical Center, Biomedicine, Bucharest, Romania
correspondence author: cojocaru.manole@gmail.com