Webinar on Demand

Reflective Learning Guide

Microbes and Coronavirus Disease 2019 (COVID-19)

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With Professor Liam O'Mahony

Professor Liam O'Mahony is a Professor of Immunology at the Departments of Medicine and Microbiology, APC Microbiome Ireland, National University of Ireland in Cork. He is currently the European Academy of Allergy and Clinical Immunology (EAACI) treasurer and an associate editor of Allergy journal. His research interests are focused on the molecular basis for microbiome and metabolite modulation of mucosal inflammatory responses. His previous work has shown an association between the gut microbiota and the risk of immune-mediated diseases such as allergy and asthma, but more recently he has focused the involvement of the gut microbiota in COVID-19, both in the acute phase and the long-term complications.

In this webinar, Professor O'Mahony talks about the role of gut microbes in immune and intestinal health in patients with COVID-19, how these microbes may be predictors of responses to COVID-19, and discusses the consideration of practical approaches to modulate the gut microbiome response in the management of COVID-19.

Learning Objectives:
1. Understand the impact of the diversity of the gut microbiome in host immune responses
2. Understand the potential to modulate host immune responses via alteration of the gut microbiota composition
3. Understand the composition of the gut microbiome as a predictor of COVID-19 clinical outcomes
4. Understand the protective role of bifidobacteria in COVID-19 recovery
5. Understand the potential mechanisms and implications of post-infective irritable bowel syndrome (IBS) in patients with long-COVID

Complete this reflective learning guide to support your learning objectives. This can be filed in your CPD portfolio as evidence of your learning.

Reflective Learning Questions:

1. The composition and diversity of the gut microbiota varies from one person to another. Reflecting on the clinical evidence presented, how did the composition of the gut microbiota affect clinical outcomes of the COVID-19 infection?

2. Describe how a 'low risk' or 'high risk' gut microbiota has been shown to affect an individual's immune response to COVID-19, and what factors may determine a low or high risk gut microbiome?

3. Summarise the effect of acute gastrointestinal symptoms of COVID-19 as a predictor for long-COVID?

4. There is increasing clinical evidence to show gastrointestinal symptoms experienced in those with long-COVID may be considered to be post infectious IBS. How does the evidence presented in the webinar support the hypothesis of COVID-19 as a trigger of post-infectious IBS?

5. What practical approaches could be considered to help modulate the gut microbiota to support the clinical management of patients with post-COVID IBS?