

Australia uncovers links between diet, gut health and immunity

13 August 2022 | News

Research finds a high-protein diet changes the gut microbiota



Research finds a high-protein diet changes the gut microbiota

A pre-clinical study from the University of Sydney, Australia has found that a high-protein diet can change the microbiota of the gut, triggering an immune response. Researchers say the study takes us a step closer to understanding the way diet impacts gut health and immunity.

In this first-of-its-kind study, published in *Nature Communications*, the team from the Charles Perkins Centre used sophisticated modelling to explore the impact of 10 diets with a different makeup of macronutrients – protein, fats and carbohydrate in mice.

They discovered that a high-protein diet changed the composition and activity of the gut microbiota.

Mice fed a high protein diet increased their production of bacterial extracellular vesicles, complex cargo containing bacterial information such as DNA and protein. The body subsequently viewed this activity as a threat and triggered a sequence of events where immune cells travelled into the gut wall.

“Here we found protein had a huge impact on the gut microbiota and it was not so much about the type of bacteria that were there, but the type of activity. In essence, we discovered a new way of communication between the gut bacteria and the host which was mediated by protein,” said the researchers.

image credit- shutterstock