understand the intestinal microbiome, the number of questions each discovery enables us to ask about the organisms that benefit the microbiome; if we are offering an adequate dose; if the microorganisms are present in sufficient numbers; if they are present in right place; if they are performing right function; if they are exhibiting the right metabolism.

Bifidobacterium longum is one of the microorganisms that can help in maintaining horses on forage. It is a probiotic that helps in maintaining the health of the gut by producing lactic acid and butyrate, which helps to stabilize the microbiome in horses fed high amounts of forage. Maintaining horses on forage can be challenging, but probiotics like Bifidobacterium longum can help in maintaining the health of the gut. Maintaining your horse's well-being also involves understanding how the microbiome is impacted by dietary changes. Research has shown that horses fed high amounts of forage have a different microbiome compared to horses fed high amounts of concentrates. This indicates that dietary changes can impact the health of the gut and the overall health of the horse.

Researchers have also identified different species of bacteria in horses with diarrhea, including Clostridium difficile and Escherichia coli. These bacteria can cause gut inflammation and may be responsible for intestinal disease. Maintaining horses on forage can be challenging, but probiotics like Bifidobacterium longum can help in maintaining the health of the gut. Maintaining your horse's well-being also involves understanding how the microbiome is impacted by dietary changes. Research has shown that horses fed high amounts of forage have a different microbiome compared to horses fed high amounts of concentrates. This indicates that dietary changes can impact the health of the gut and the overall health of the horse.

Weese and his team have also noted alterations to the intestinal microbiome, especially considering that a foal is conceived and develops in a sterile environment. However, as soon as the foal is born, it is exposed to the outside world, and the microbiome begins to develop. A relative stability in the microbiome develops in the foal by 60 days of age. Researchers have developed techniques such as next generation sequencing to identify the metabolites (e.g., short chain fatty acids, SCFAs) and the microorganisms. Identifying all the species and their exact roles, however, has been challenging.

Another interesting aspect of the microbiome is learning where it came from, especially considering that a foal is conceived and develops in a sterile environment. The foal's microbiome is not inherited from the dam, but rather it is acquired from the environment. The foal's microbiome develops as it ingests milk, which contains probiotics and other microorganisms. The foal also acquires microorganisms from its gut, including the food it eats, the water it drinks, and the air it breathes.

The development of the microbiome is a complex process that involves the interplay of genetics and environment. The foal's microbiome is not inherited from the dam, but rather it is acquired from the environment. The foal's microbiome develops as it ingests milk, which contains probiotics and other microorganisms. The foal also acquires microorganisms from its gut, including the food it eats, the water it drinks, and the air it breathes. These microorganisms help to maintain the health of the gut and prevent diseases such as colic.

The role and impact of the gastric microbiome on equine gastric health is also important. Researchers have identified different species of bacteria in the stomach of horses, including Helicobacter pylori, which is associated with gastric ulcers. The gastric microbiome is also important in the development of colic, a condition that affects horses and can be caused by a variety of factors, including dietary changes, stress, and other environmental factors. The gastric microbiome also plays a role in the development of gastrointestinal diseases, such as ulcers and colitis.

In conclusion, the intestinal microbiome is a complex ecosystem that plays a critical role in the health and well-being of horses. Maintaining the health of the microbiome involves understanding the role and impact of the gastric microbiome, and the interplay of genetics and environment on the development of the microbiome. By understanding these factors, we can maintain the health of horses and prevent diseases such as colic.