# Article information:

Intestinal mycobiota in health and diseases: from a disrupted equilibrium to clinical opportunities | Microbiome | Full Text
<https://microbiomejournal.biomedcentral.com/articles/10.1186/s40168-021-01024-x>

# Article summary:

1. Gut mycobiota, or the fungal community in the gut, plays an important role in regulating intestinal physiology and affecting the functions of extraintestinal organs such as the liver, lung, and brain.

2. Traditional culture-dependent methods for studying gut fungi have limitations, but recent advances in deep-sequencing technologies and bioinformatics analysis have shed light on the complexity of the gut fungal communities.

3. Factors such as delivery mode, gestational age at birth, infant feeding mode, maternal diet, environment, and host genetics can affect the composition of gut mycobiota. Understanding these factors could lead to clinical opportunities for treating various diseases.

# Article rating:

Appears moderately imbalanced: The article provides some useful information, but is missing several important points or pieces of evidence that would be required to present the discussed topics in a balanced and reliable way. You are encouraged to seek a more balanced perspective on the presented issues by exploring the provided research topics and looking at different information sources.

# Article analysis:

The article "Intestinal mycobiota in health and diseases: from a disrupted equilibrium to clinical opportunities" provides a comprehensive review of the importance of gut fungi in regulating intestinal physiology and their extraintestinal functions. The authors discuss the methodologies for studying gut mycobiome, colonization, and composition of gut mycobiota, and the factors affecting them. They also highlight the importance of gut fungi on the intestine and intestinal-associated distal targets, including gut-lung axis, gut-liver axis, gut-brain axis, and possibly gut-kidney axis and gut-pancreas axis.

Overall, the article provides valuable insights into the role of gut fungi in human health. However, there are some potential biases and limitations that need to be considered. Firstly, the article focuses mainly on the positive effects of gut fungi on human health without discussing any potential risks or negative effects. While it is true that commensal fungi play an important role in modulating intestinal physiology, they can also cause infections and disrupt fungal homeostasis in immune-compromised individuals.

Secondly, the article neglects to mention some important factors that can affect the composition of gut mycobiota such as medication use (e.g., antibiotics), lifestyle factors (e.g., smoking), and underlying medical conditions (e.g., inflammatory bowel disease). These factors can significantly alter the balance of microbial communities in the gut.

Thirdly, while the article acknowledges that there is no consensus on the optimal methodology for characterizing gut mycobiome, it does not provide any recommendations or guidelines for researchers who want to study this area. This could lead to inconsistencies in research findings due to variations in methods used.

Finally, some claims made by the authors lack sufficient evidence or support. For example, they state that "multiple targets of gut fungi may offer new possibilities for diagnosis and treatment of various diseases." While this is a promising area of research, more studies are needed to establish a causal relationship between changes in gut mycobiota and disease outcomes.

In conclusion, while this article provides valuable insights into the role of commensal fungi in human health, it is important to consider its potential biases and limitations when interpreting its findings. Further research is needed to fully understand how changes in gut mycobiota affect human health outcomes.

# Topics for further research:

* Negative effects of gut fungi on human health
* Impact of medication use on gut mycobiota
* Lifestyle factors and gut mycobiota composition
* Inflammatory bowel disease and gut mycobiota
* Optimal methodology for studying gut mycobiome
* Causal relationship between gut mycobiota and disease outcomes

# Report location:

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