1. OBJECTIVES

- Shed light on the impact of gut microbiome on mood disorders, particularly depression.
- Identify factors influencing gut-brain signaling that could be manipulated for better mental health.

2. BACKGROUND

THE GUT-BRAIN-MICROBIOTA AXIS

Constant bi-directional communication
Evidence on this matter remains limited

3. METHODS AND MATERIALS

Systematic literature review
Articles published in the last 5 years on PubMed
Query "(psychobiotics OR microbiome OR microbiota) AND depression"
Full-text articles + inclusion & exclusion criteria

4. RESULTS

Food digestion by commensal gut bacteria
Impact on brain function
- Neurotransmitter creation & regulation
- Influence on brain tryptophan availability
- Dysbiosis → oxidative stress + inflammation

Growing interest in psychobiotics
Ingested bacteria which may benefit mental health

Potential benefits to mental health
- Effects via enteric nervous system
- Impact on emotional and cognitive functions
- Exposure during puberty might reduce inflammation & stress-induced vulnerability
- Potential antidepressant effects, although evidence for efficacy is still insufficient

5. CONCLUSIONS

Gut-brain-microbiome axis management and psychobiotics stand as a promising therapeutic alternative in the treatment of mood disorders, such as depression.

6. REFERENCES