

# Stress management with probiotics in cats

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## INTRODUCTION

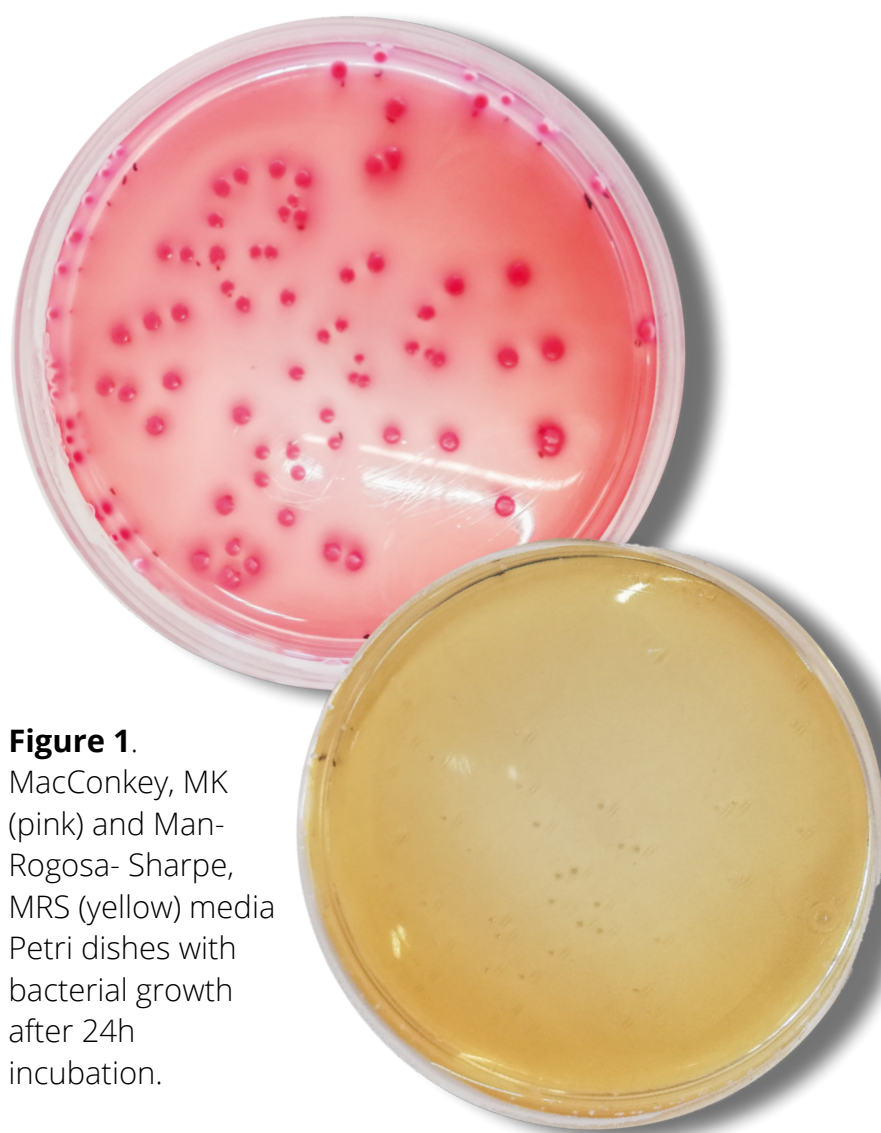
The gastrointestinal tract of cats and other animals is colonized by millions of bacteria, and other microbes, which constitute the microbiota. They develop a very important role in many body systems. Many mental illnesses have been found to be with changes in microbiota, such as depression and stress.

Probiotics are a mixture or a single culture of live microorganisms that have beneficial effects on microbiota. They have been proposed as a treatment for mental disorders.

## OBJECTIVES

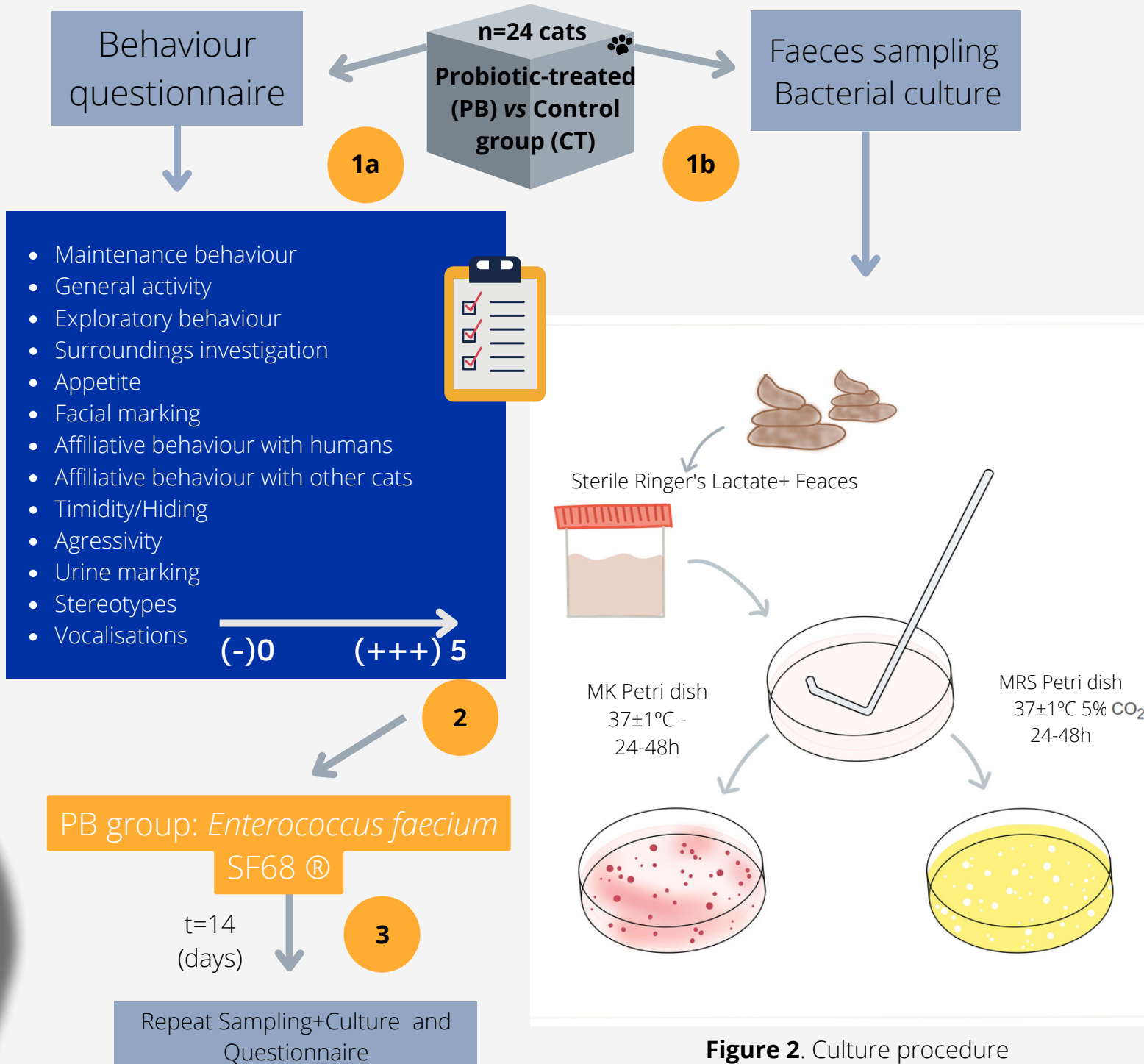
1- Review the acknowledgment of microbiota and the use of Probiotics.

2- Preliminarily assess if *Enterococcus faecium* SF68® prescription, could potentially be used cats to improve their welfare.



**Figure 1.** MacConkey, MK (pink) and Man-Rogosa- Sharpe, MRS (yellow) media Petri dishes with bacterial growth after 24h incubation.

## MATERIALS AND METHODS

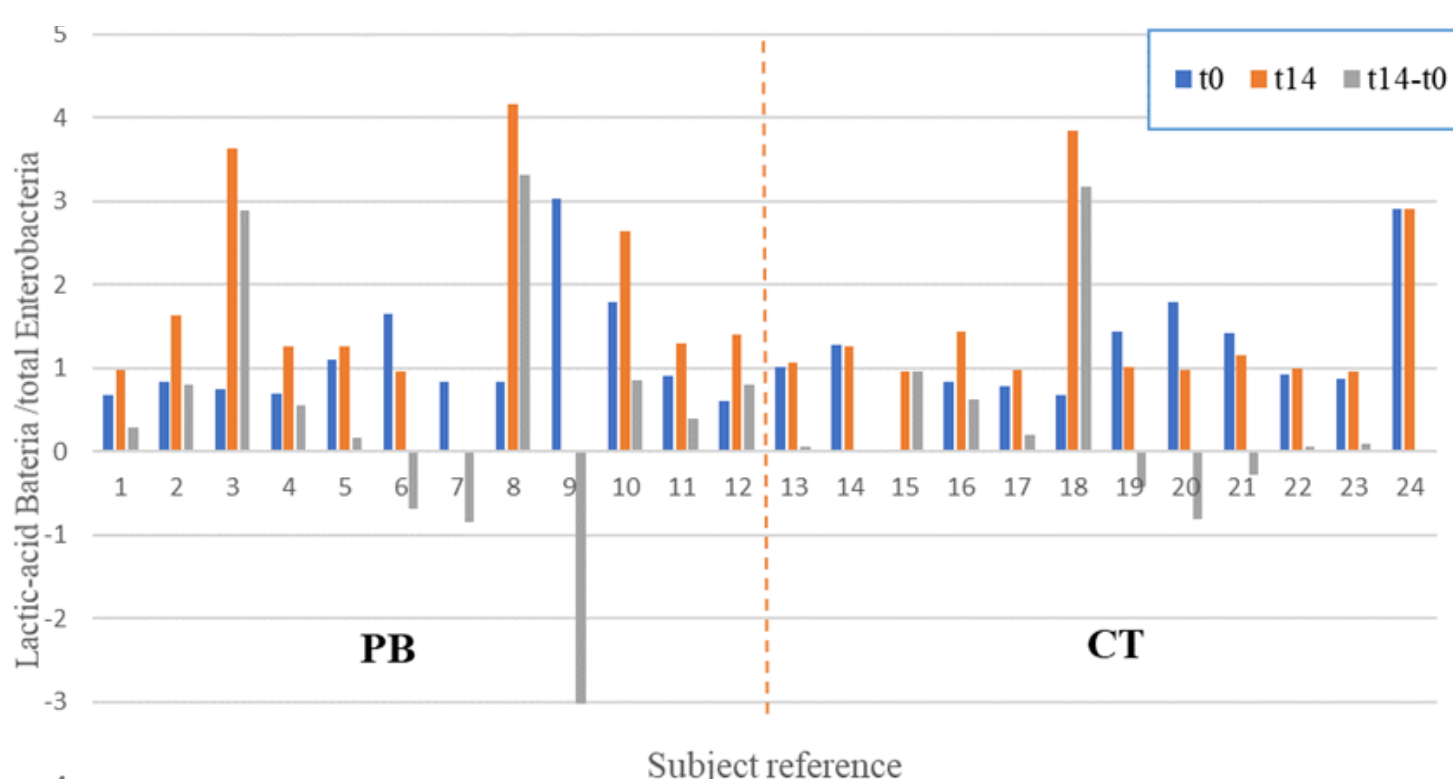


**Figure 2.** Culture procedure

## RESULTS

Parameter	Probiotic	Control
tE	S* ↓	NS* ↓
LAB	NS* ↑	NS* ↓
LAB/tE	NS ↑	NS ↑
Behaviour	No changes	No changes

**Table 1.** Results of the bacterial counts and behavioural assess. (tE: total Enterobacteria, LAB: Lactic-acid Bacteria, NS: Non-statistically significant, S: statistically significant, \*: t-student test).



**Figure 3.** Lactic-acid Bacteria/total Enterobacteria of n=24 in times 0 (t0), 14 (t14) and time 14-time 0 (t14-t0, meaning, index increase or decrease) in Probiotic-treated group (PB) vs Control group (CT).

## DISCUSSION

Total Enterobacteria mean count decreased after *E.faecium* SF68® administration could significate a beneficial impact on microbiota.

Lactic-acid Bacteria mean count tended to increase but not significantly. The Lactic-acid Bacteria/ total Enterobacteria is an interesting measure to see how the cultivable microbiota composition evolves depending on general health status and feeding.

No effects on behaviour opposing previous studies results. It could be explained for the duration of the administration, the validity of the behavioural test or the variability within the subjects.

## CONCLUSIONS

1. **No effects on stress** were seen after Probiotic administration.
2. **Microbiota's** composition was improved.
3. **No negative effects** were seen on treated animals. Overall health was considered to be increased.
4. **Standardised probiotic** use for mental disorders requires to get done.
5. **Further investigation** could be potentially beneficial in animal's mental disease's treatment.

## BIBLIOGRAPHY (Selected)

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