

**Yakult**

Science for Health

# Darmmicrobiota, ondervoeding en (mond)gezondheid

Dr. Olaf Larsen

15 februari 2022



# Disclaimer

- Deze presentatie is uitsluitend bedoeld voor gezondheidsprofessionals, wetenschappers en journalisten

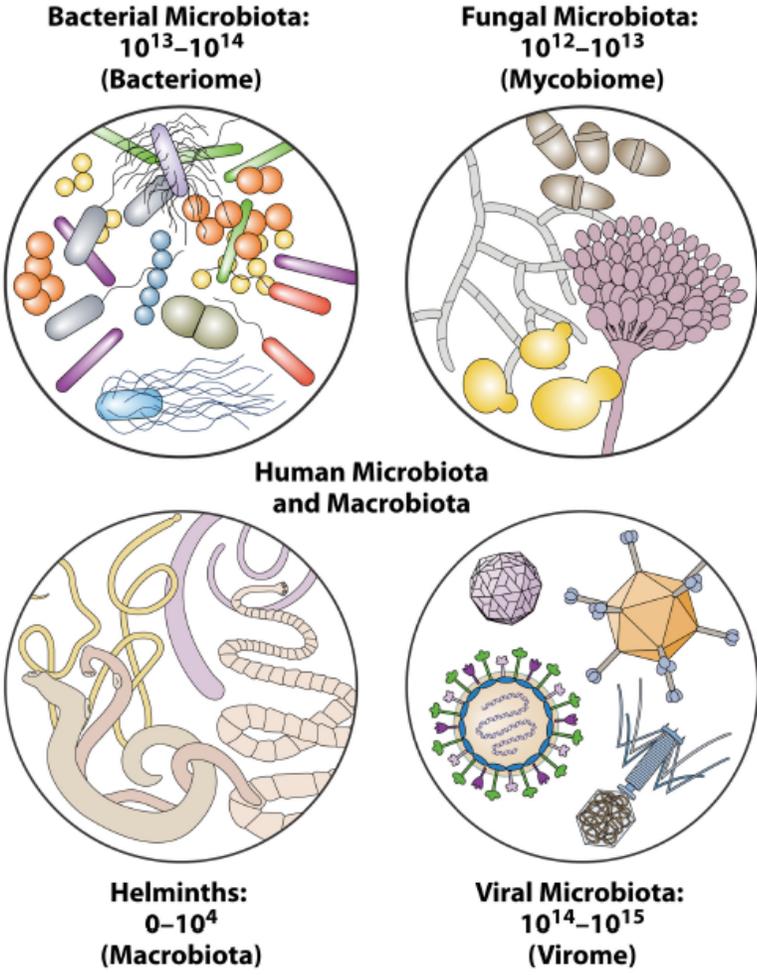
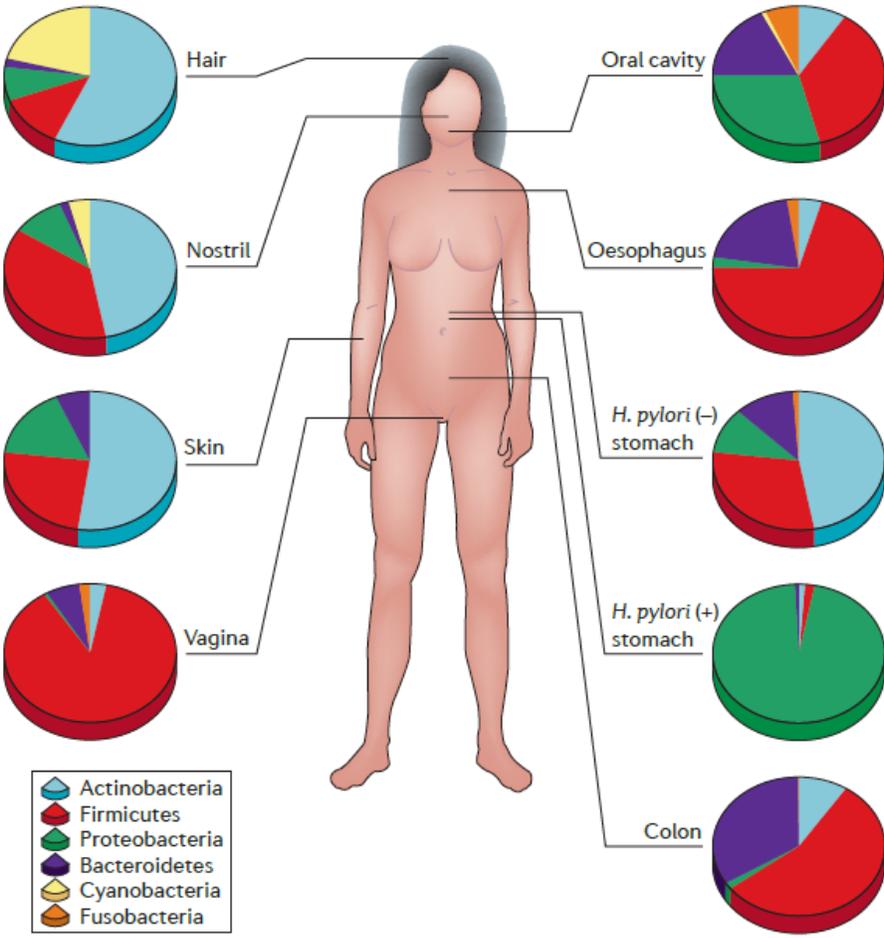
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# Conflicts of interest



- Asst. Professor @ Athena Institute, Vrije Universiteit Amsterdam (0.2 FTE)
- Senior Manager Science @ Yakult Nederland B.V.

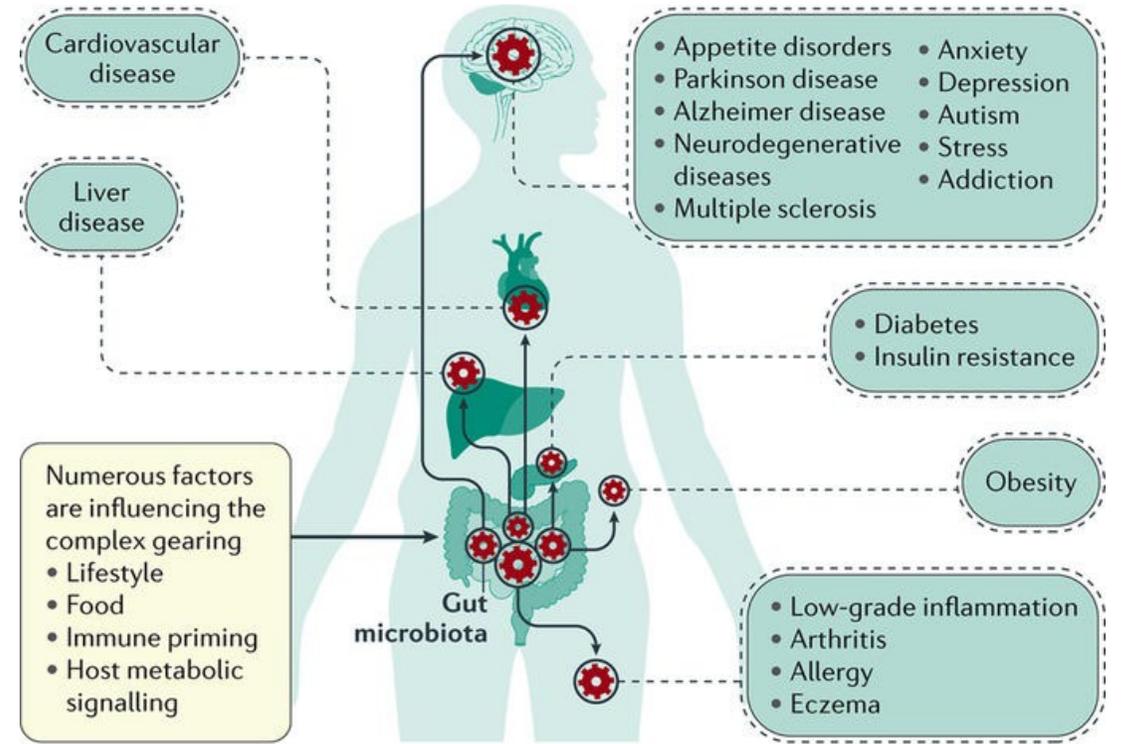
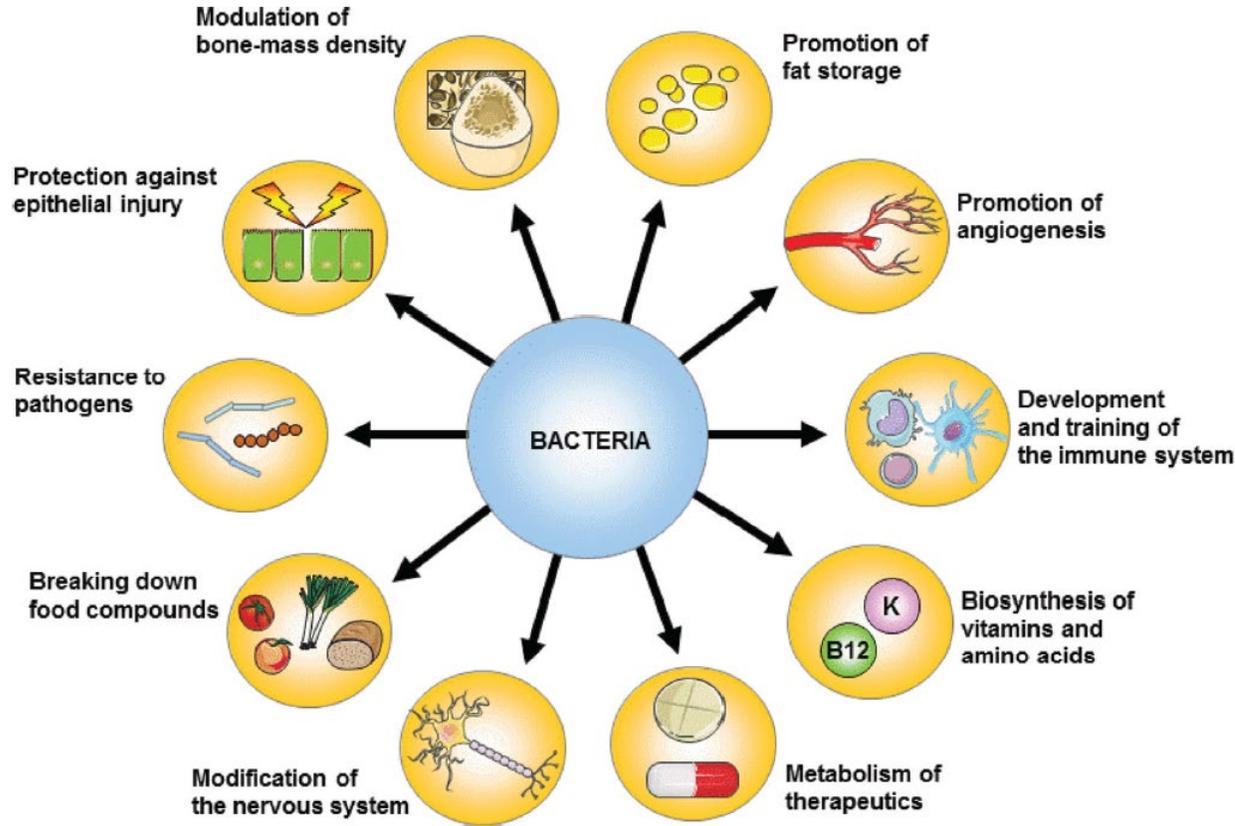
# De microbiota



Cho & Blaser, (2012). Nature Rev Genetics, 13(4), 260-270

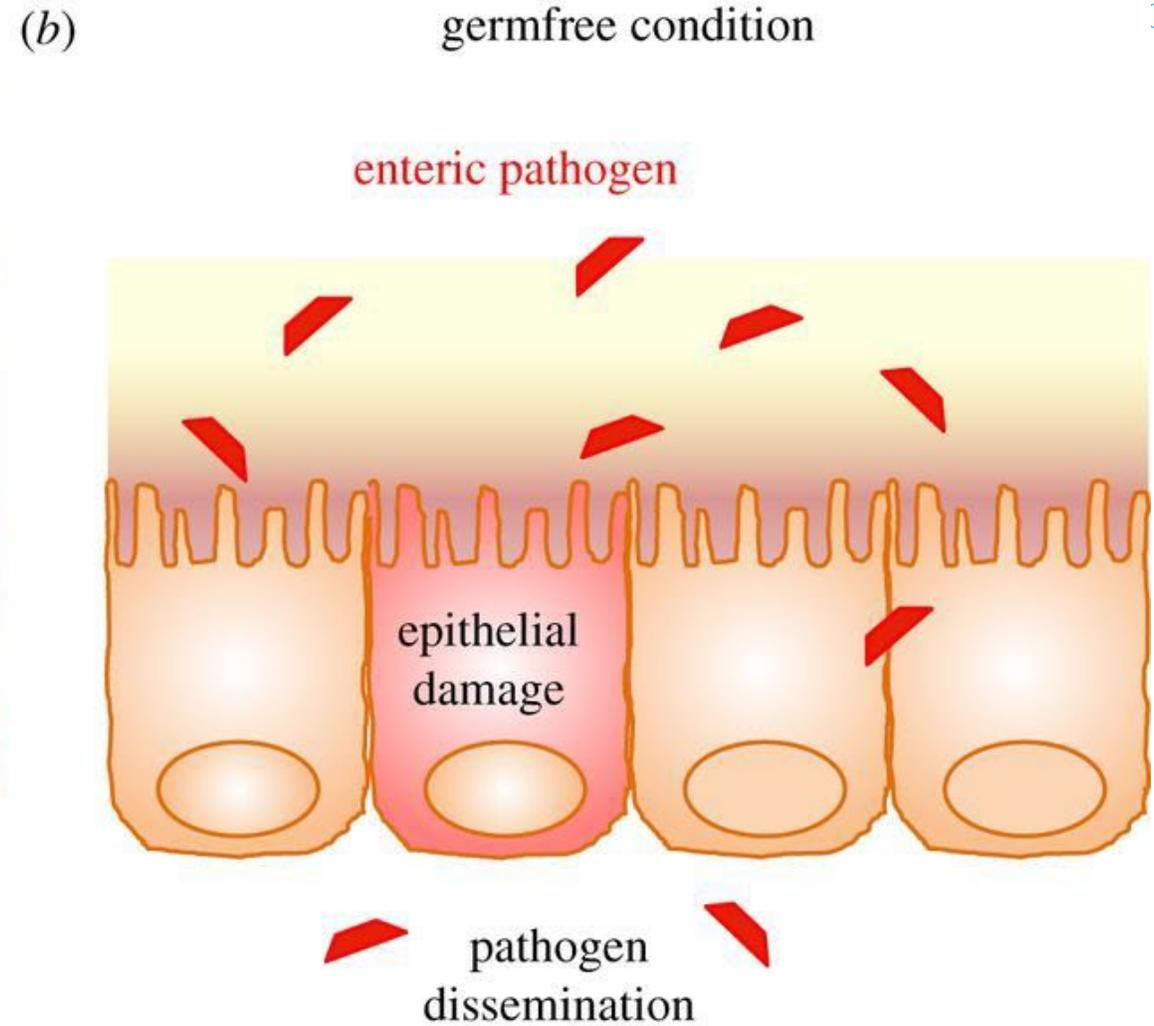
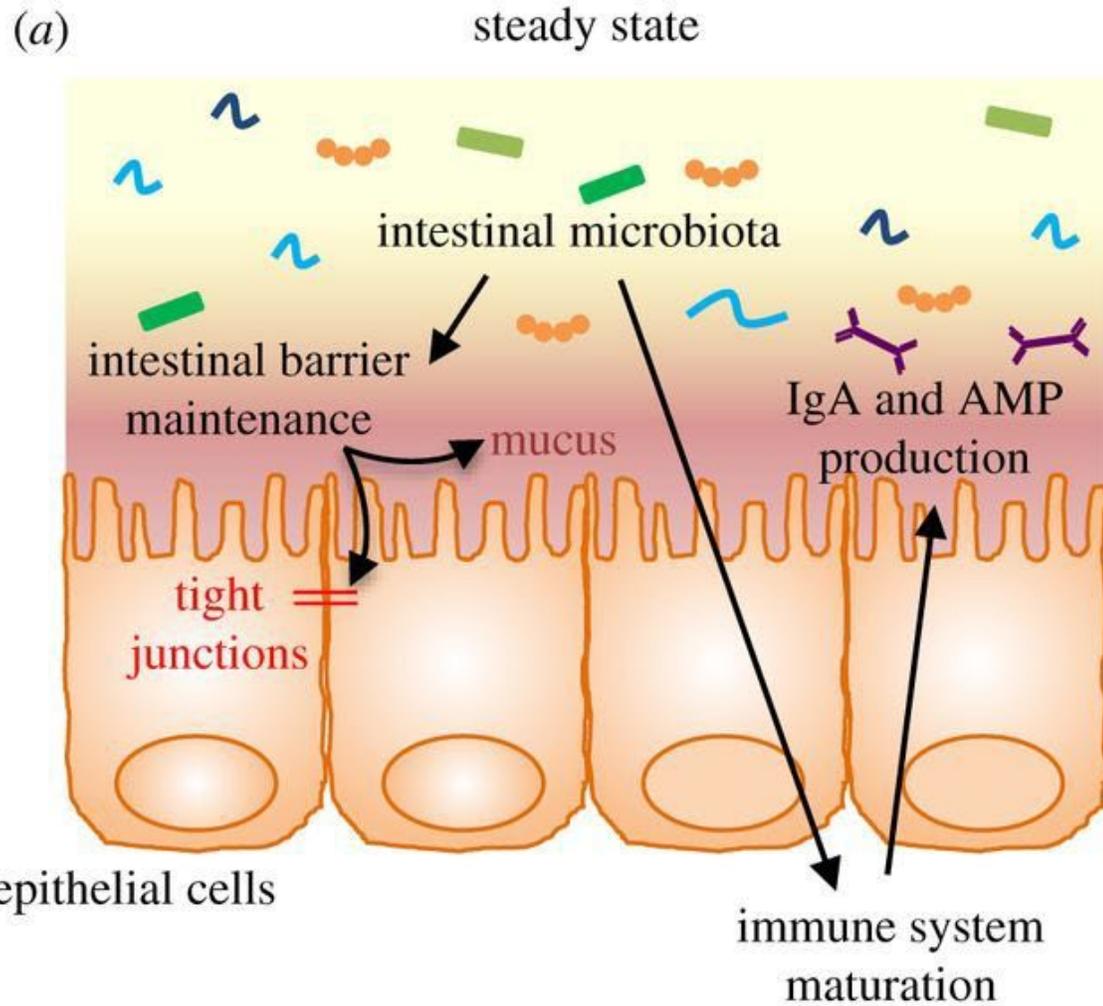
Rowan-Nash, et al. (2019). Microbiology and Molecular Biology Reviews, 83(1)

# De rol van de darmmicrobiota: correlatie of causaliteit?



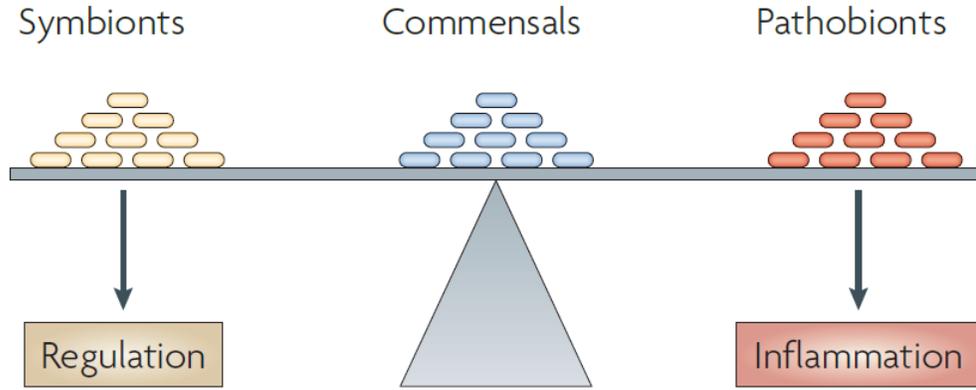
Nature Reviews | Gastroenterology & Hepatology

# De darmmicrobiota: functies

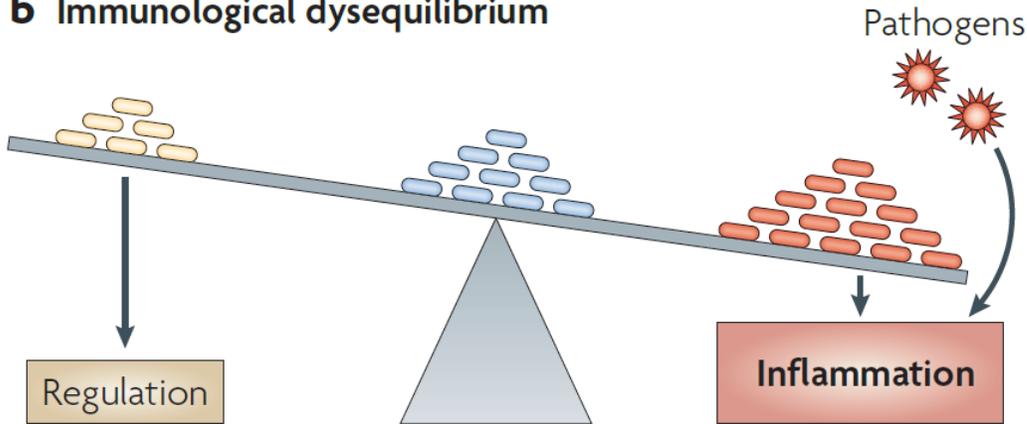


# Veroudering: de “natuurlijke” dysbiose

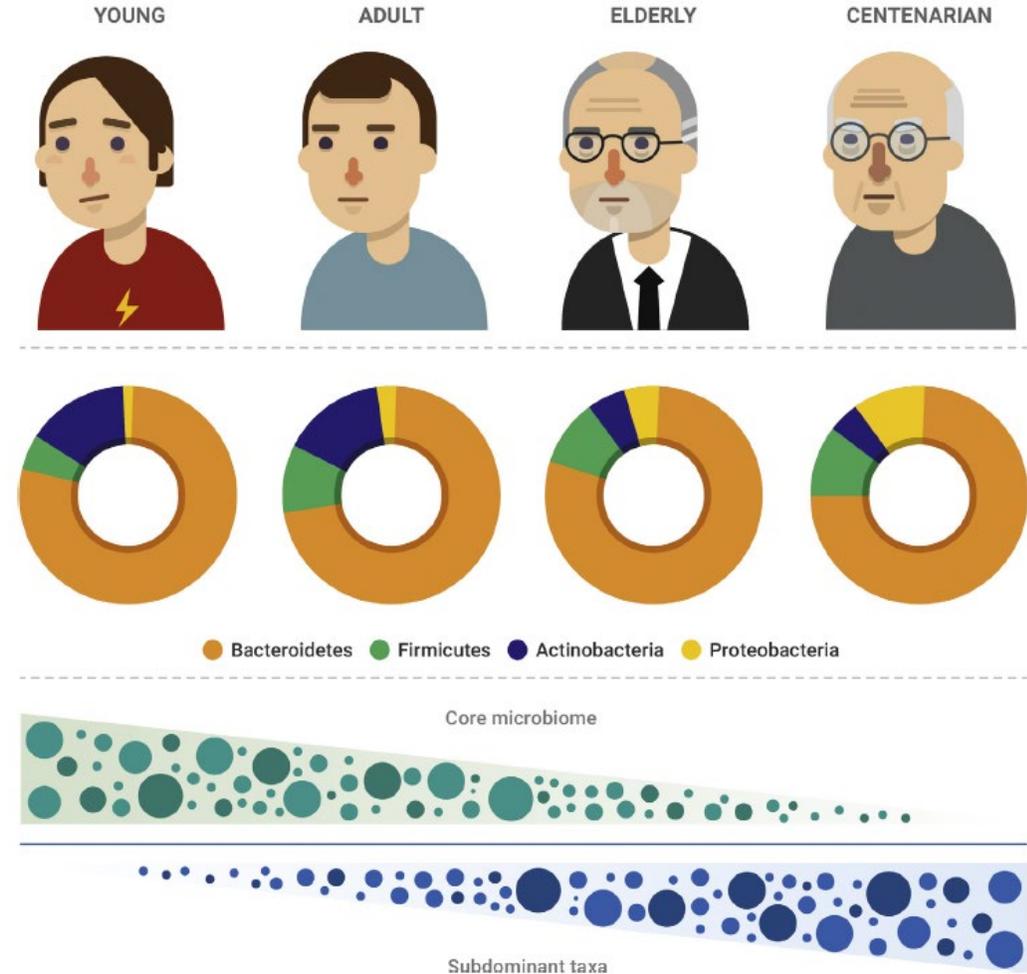
## a Immunological equilibrium



## b Immunological dysequilibrium

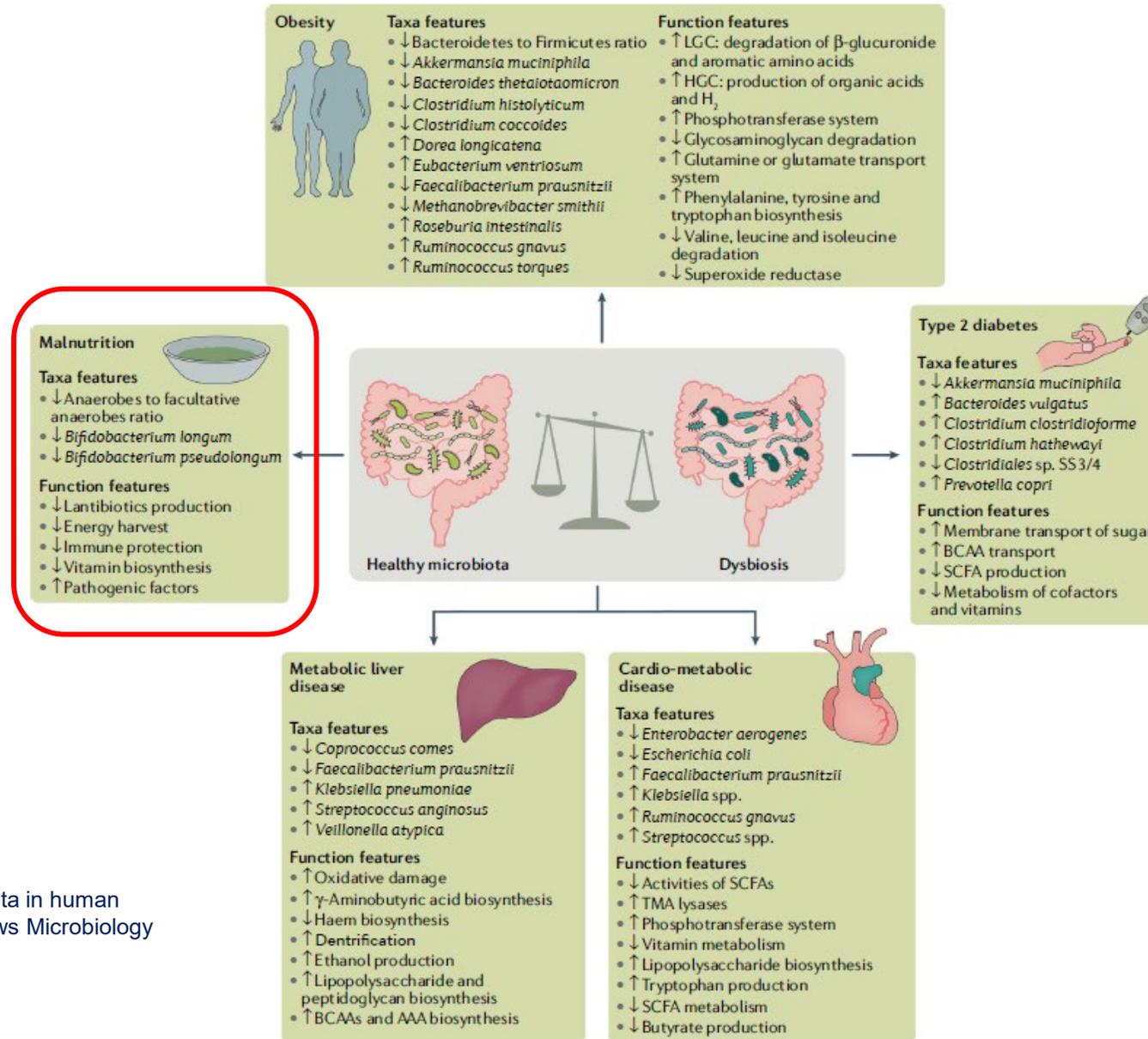


Round & Mazmanian, Nature Rev. Immunology, 2009



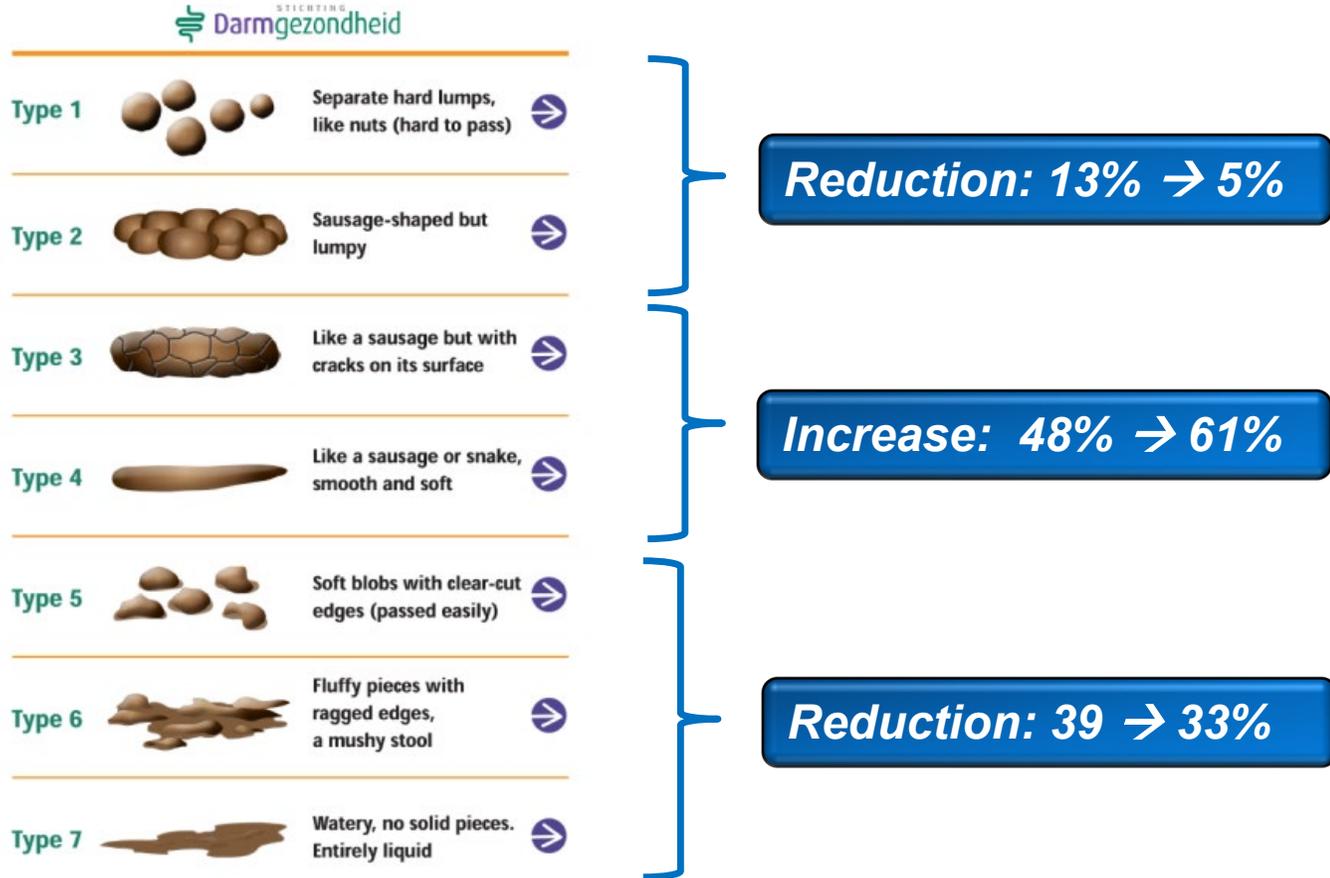
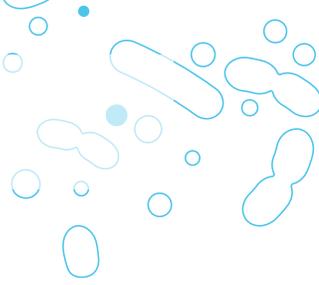
Vaiserman et al. , and Francesco Marotta. Ageing research reviews 35 (2017): 36-45.

# De darmmicrobiota en metabole gezondheid



Fan, Yong, and Oluf Pedersen. "Gut microbiota in human metabolic health and disease." *Nature Reviews Microbiology* 19.1 (2021): 55-71.

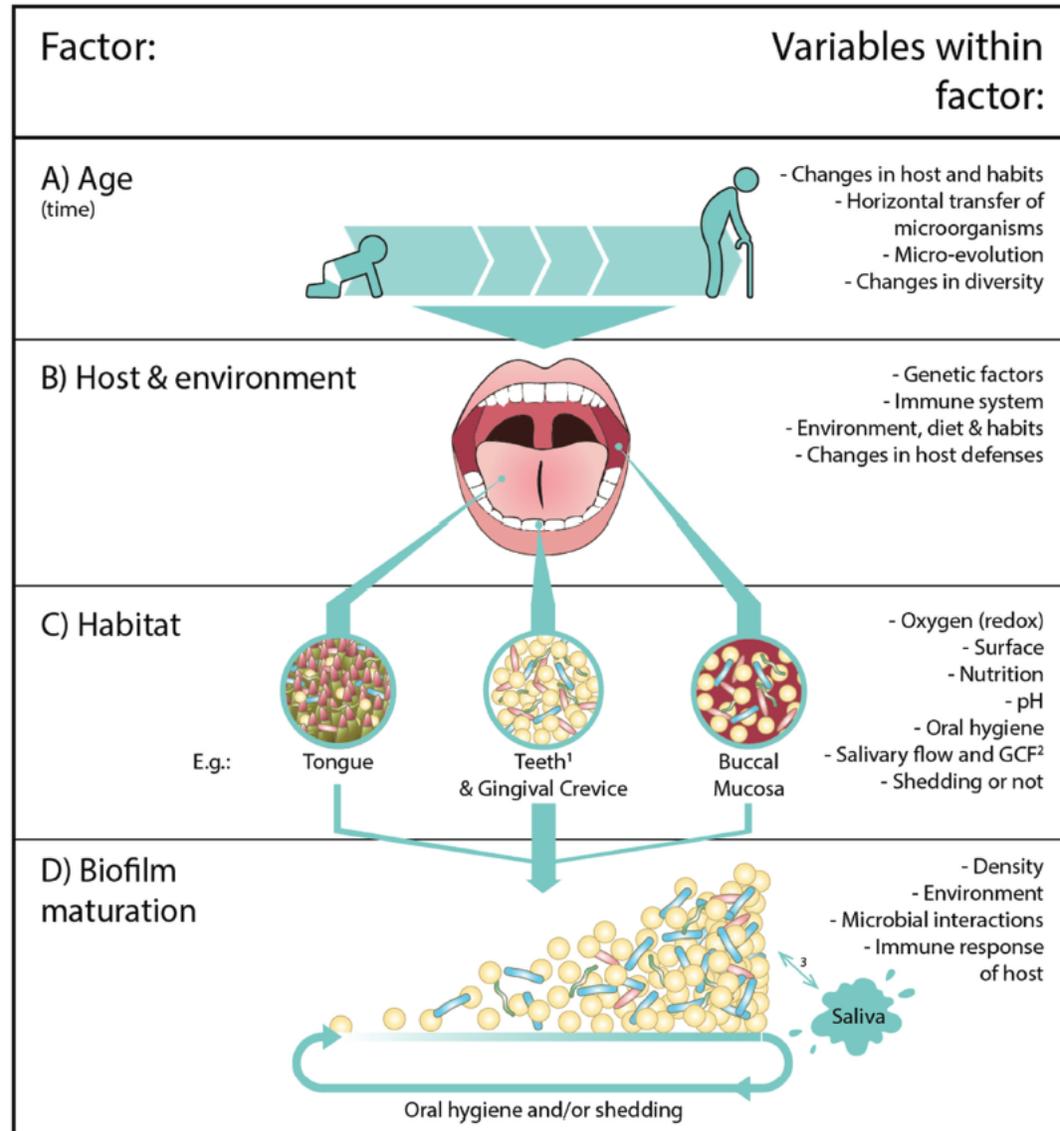
# Interventie met probiotica: QoL én kostenbesparing



Van den Nieuwboer, M., Klomp-Hogeterp, A., Verdoorn, S., Metsemakers-Brameijer, L., Vriend, T. M., Claassen, E., & Larsen, O. F. A. (2015). Improving the bowel habits of elderly residents in a nursing home using probiotic fermented milk. *Beneficial microbes*, 6(4), 397-403.

Flach, J., M. Koks, M. B. van der Waal, E. Claassen, and O. F. A. Larsen. "Economic potential of probiotic supplementation in institutionalized elderly with chronic constipation." *PharmaNutrition* 6, no. 4 (2018): 198-206.

# De orale microbiota



# De orale microbiota: link met systemische aandoeningen



# Systemische aandoeningen: coronaire hartaandoeningen

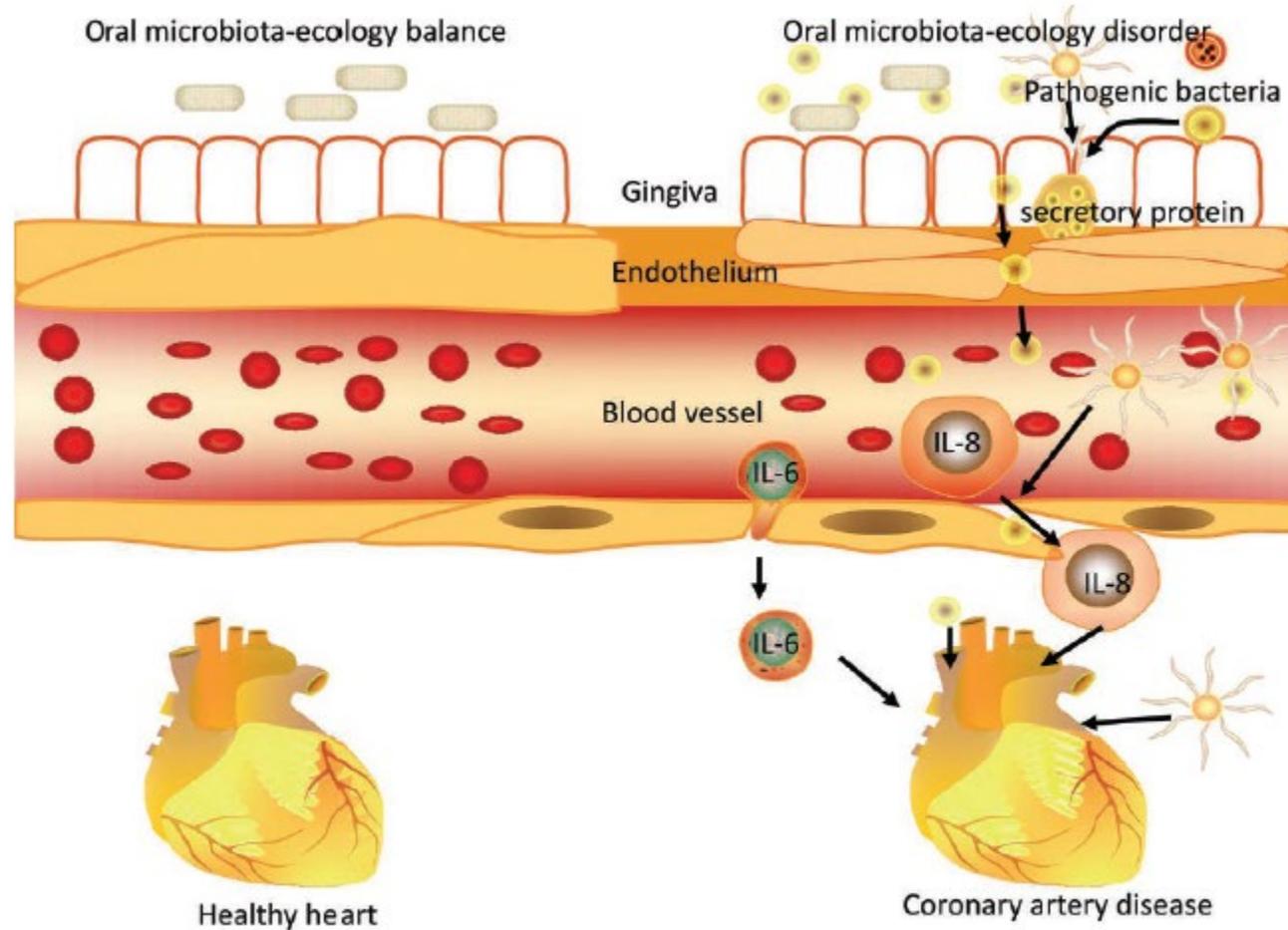
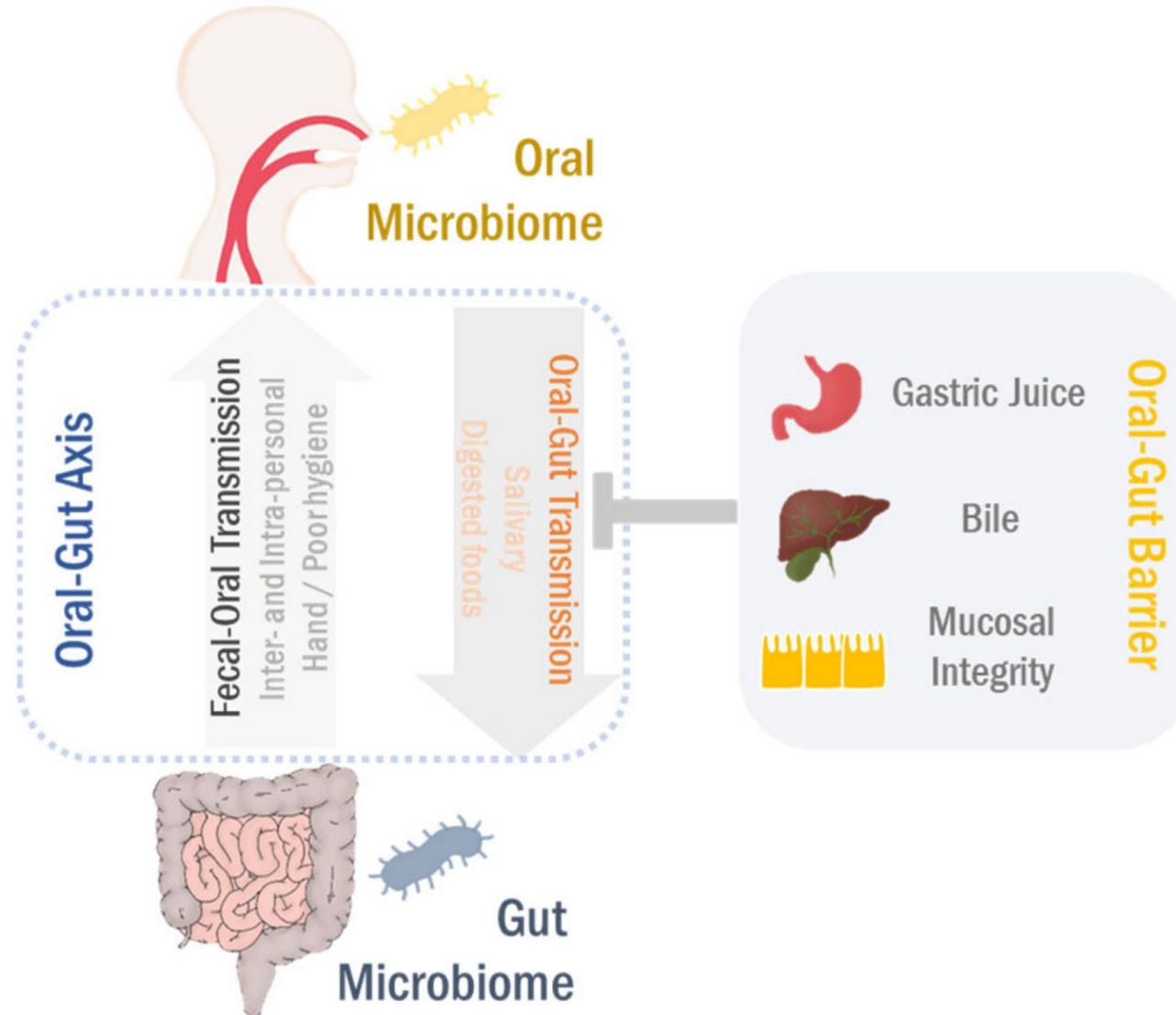
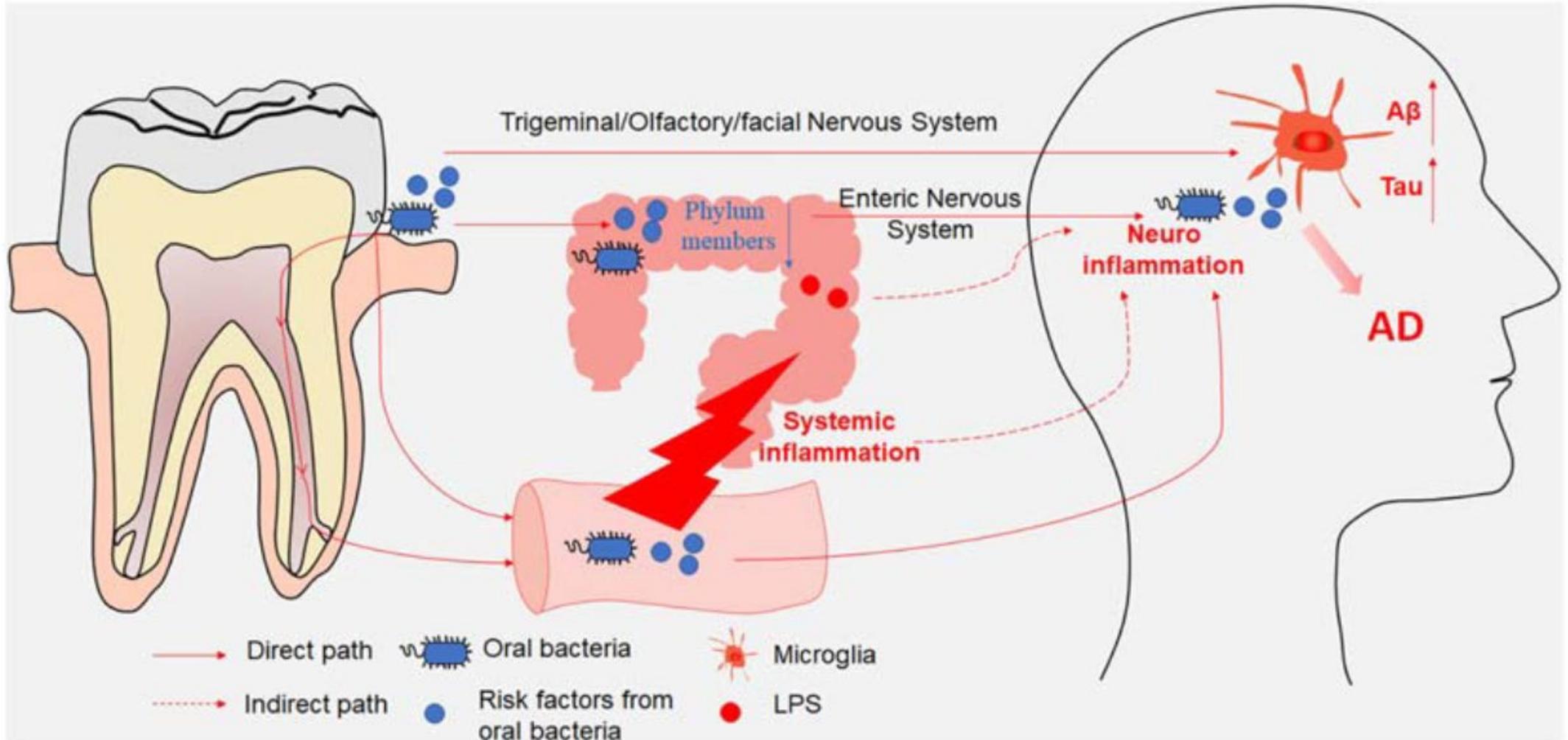


Fig. 2 An association between oral bacteria and coronary artery disease

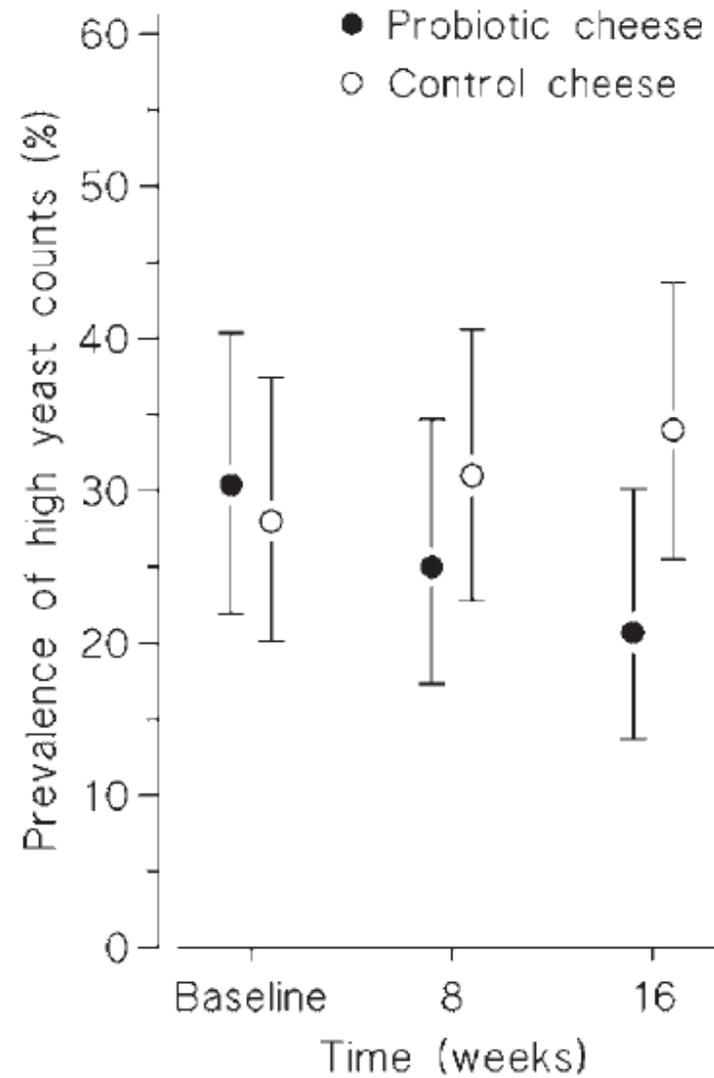
# De orale-darm-microbiota as



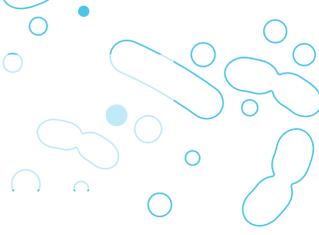
# De orale-darm-microbiota brein as: rol in Alzheimer?



# Probiotica en mondgezondheid?



# Probiotica en inflammatie?

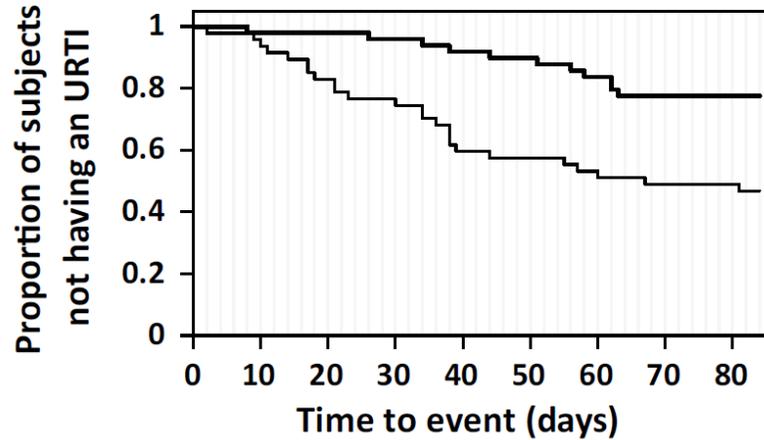


## The effect of probiotics on inflammatory biomarkers: a meta-analysis of randomized clinical trials

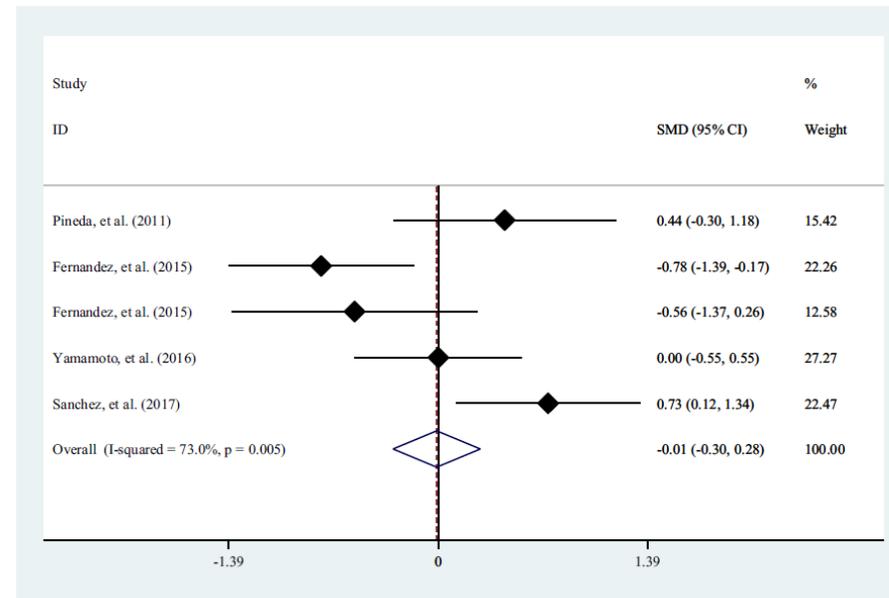
Alireza Milajerdi, Seyyed Mohammad Mousavi, Alireza Sadeghi, Asma Salari-Moghaddam, Mohammad Parohan, Bagher Larjani & Ahmad Esmailzadeh

European Journal of Nutrition 59, 633–649 (2020) | Cite this article

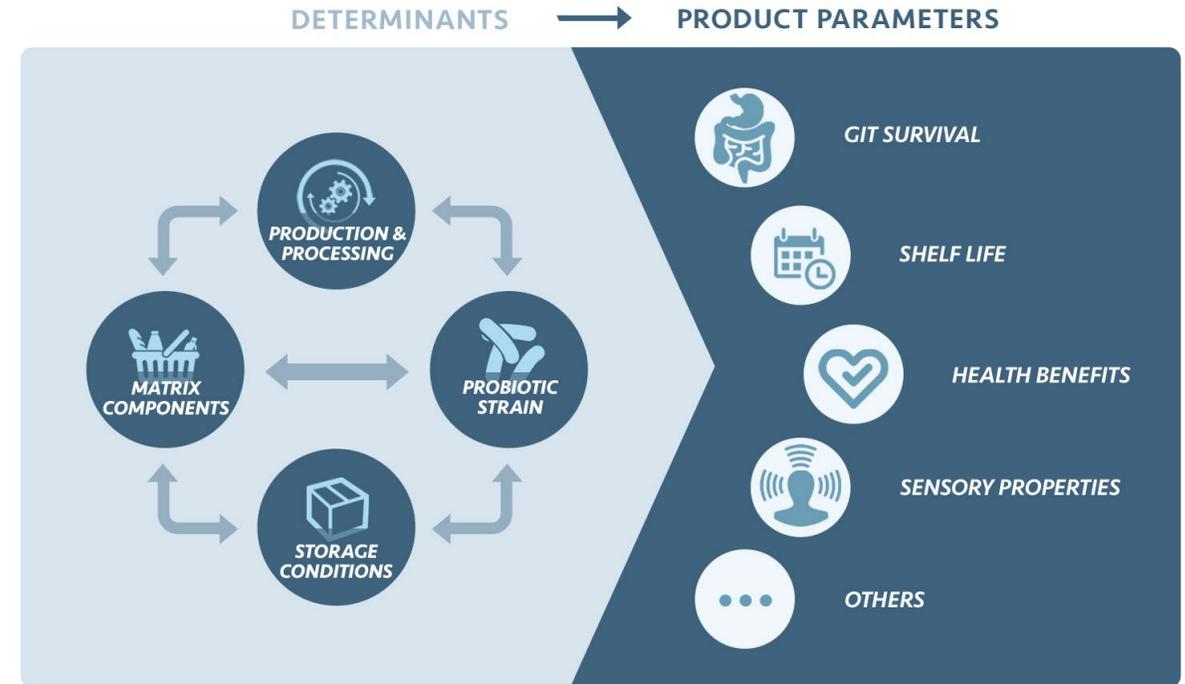
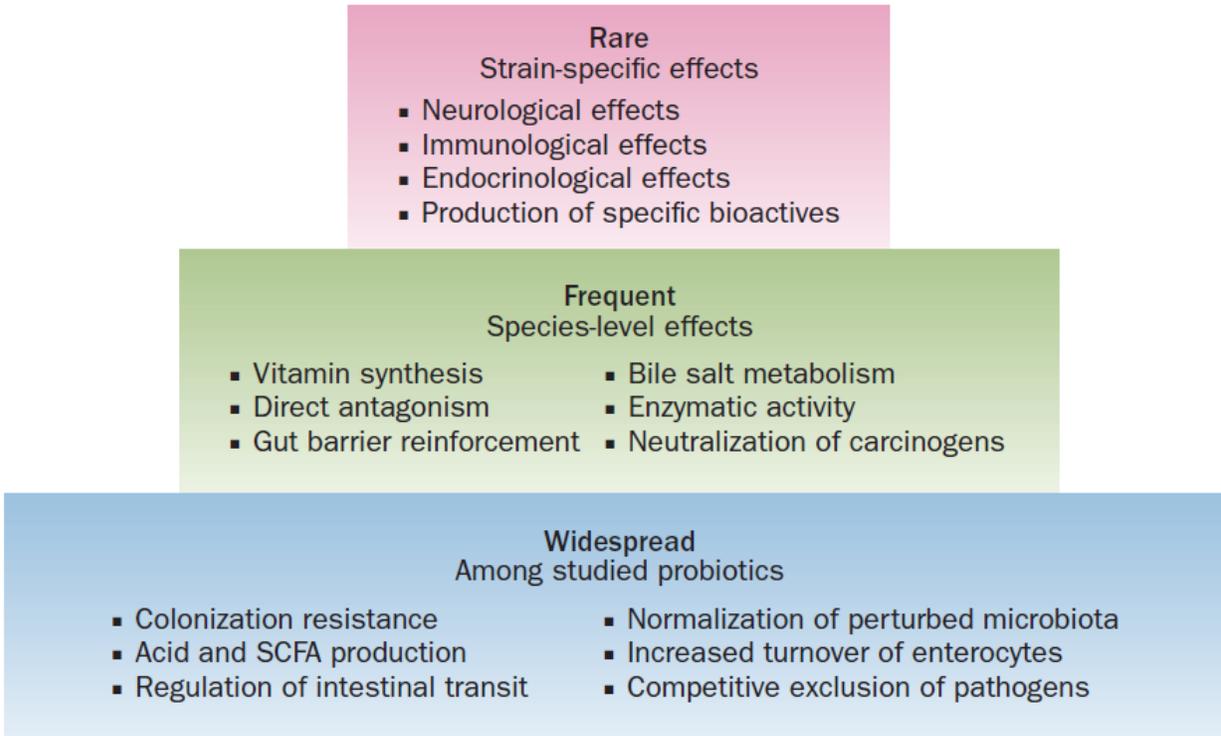
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**Fig. 2** Kaplan–Meier time-to-event curves for the first URTI. The URTI-free rates were 0.78 (95 % CI 0.66–0.89) and 0.47 (95 % CI 0.33–0.61) in the LcS-FM (*thick line*) and the CM (*thin line*) groups, respectively



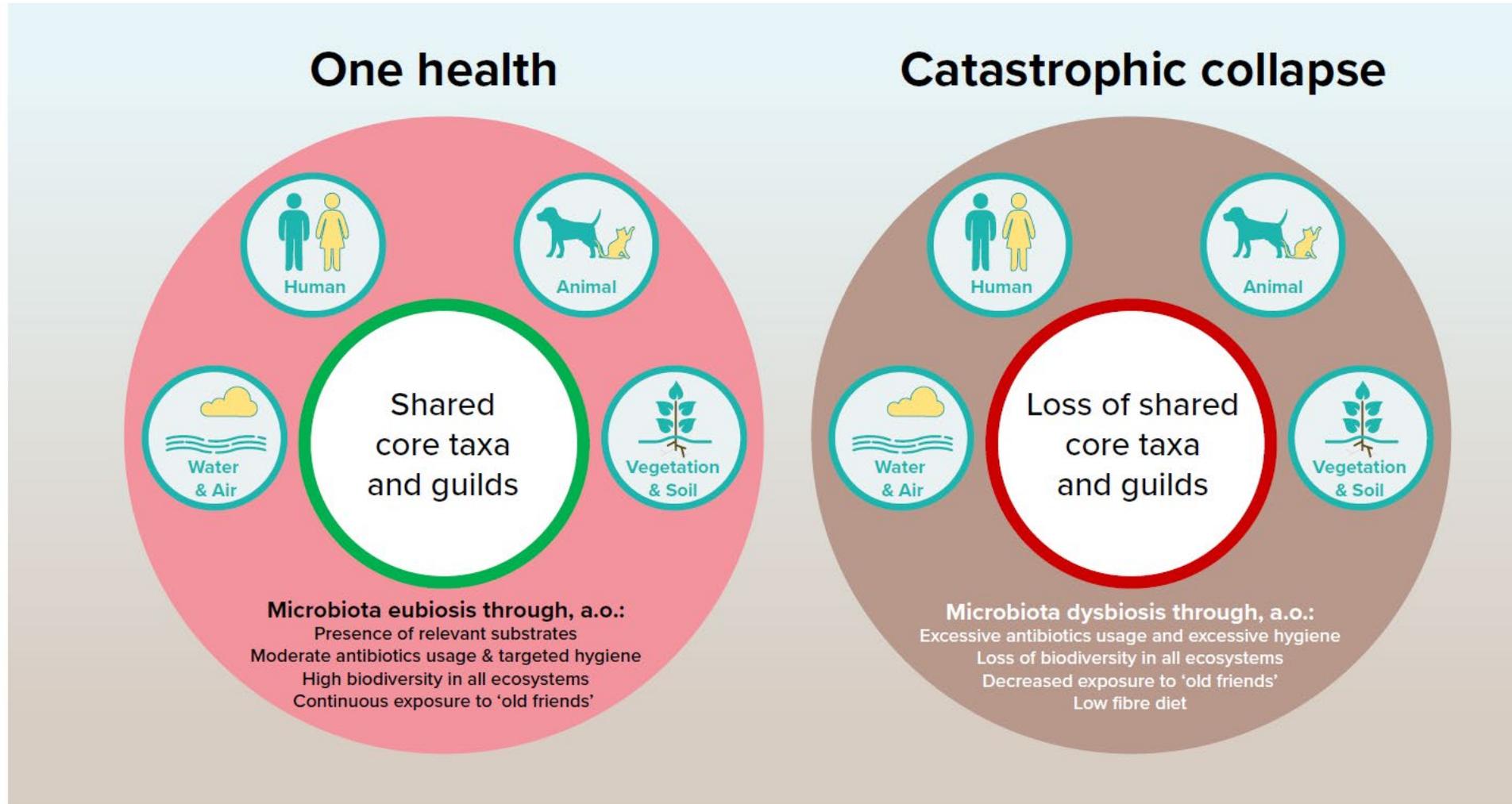
# Probiotica zijn soms, maar niet altijd, “one size fits all”!



Colin Hill et al. Nat Rev Gastroenterol Hepatol 11.8 (2014): 506-514.

Flach, Koks, v.d. Waal, v.d. Nieuwboer, Claassen & Larsen, Critical reviews in food science and nutrition (2017): 1-15

# Gezonder ouder worden: onze microben



Larsen, Olaf, and Linda Van de Burgwal. "On the verge of a catastrophic collapse? The need for a multi-ecosystem approach to microbiome studies." *Frontiers in Microbiology*: 3611.

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## Dank voor uw aandacht!

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