



# Quando não utilizar probióticos

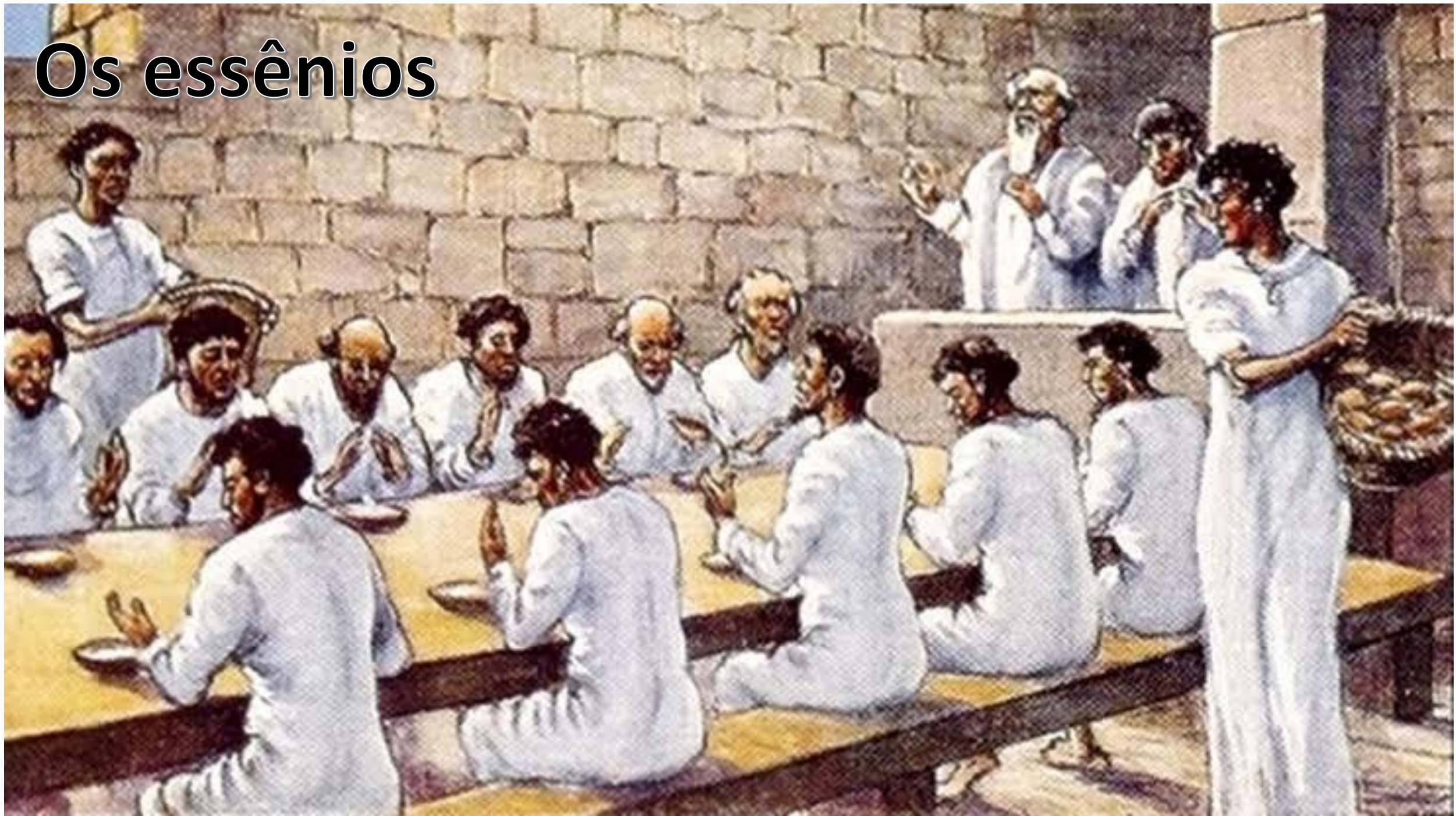
Bruno Zylbergeld, PhD

*Jovaine Renee*

# **Histórico do uso dos probióticos**



# Os essênios





# Hipócrates



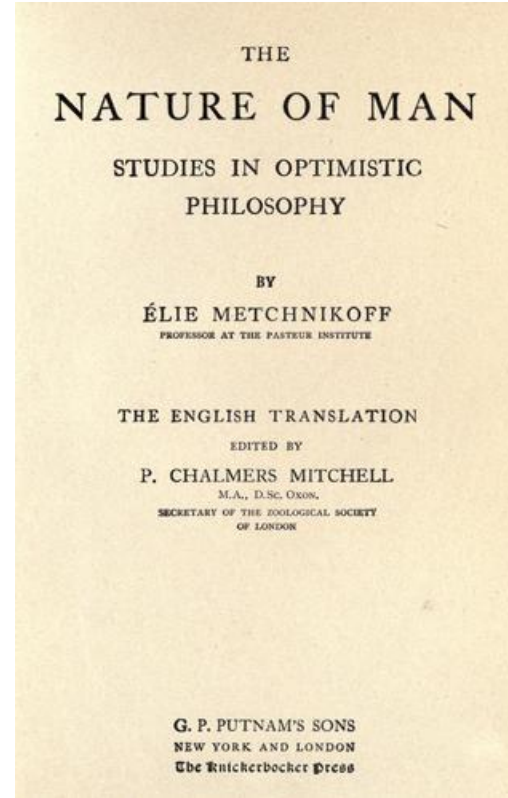
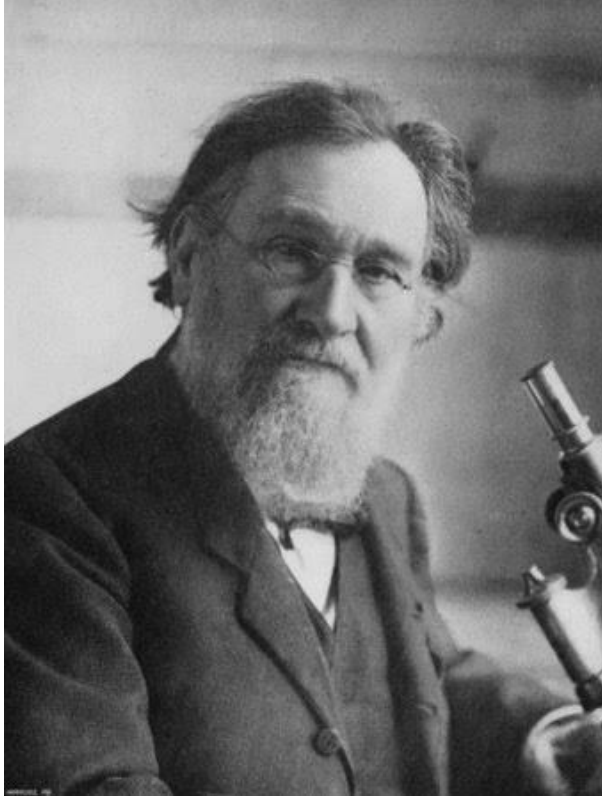


# Ge Hong (4 dc)





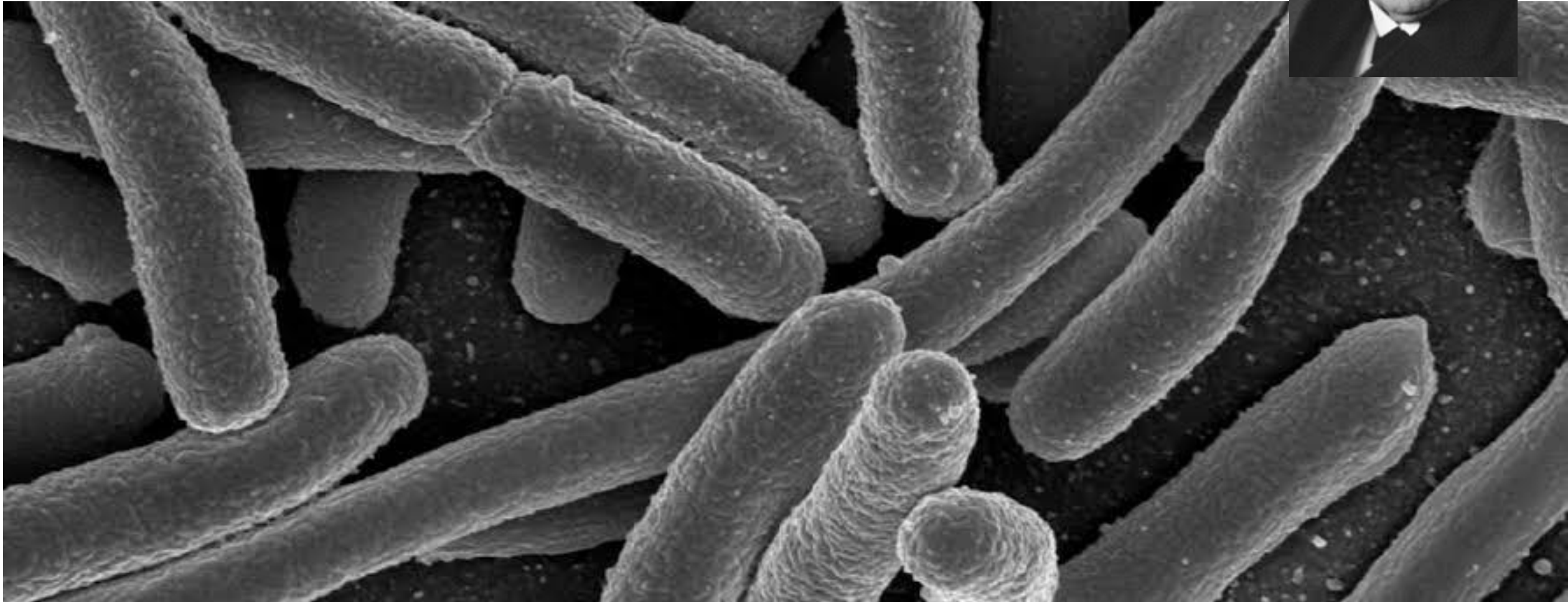
# Élie metchnikoff



alamy

Image ID: HNDX8C  
www.alamy.com

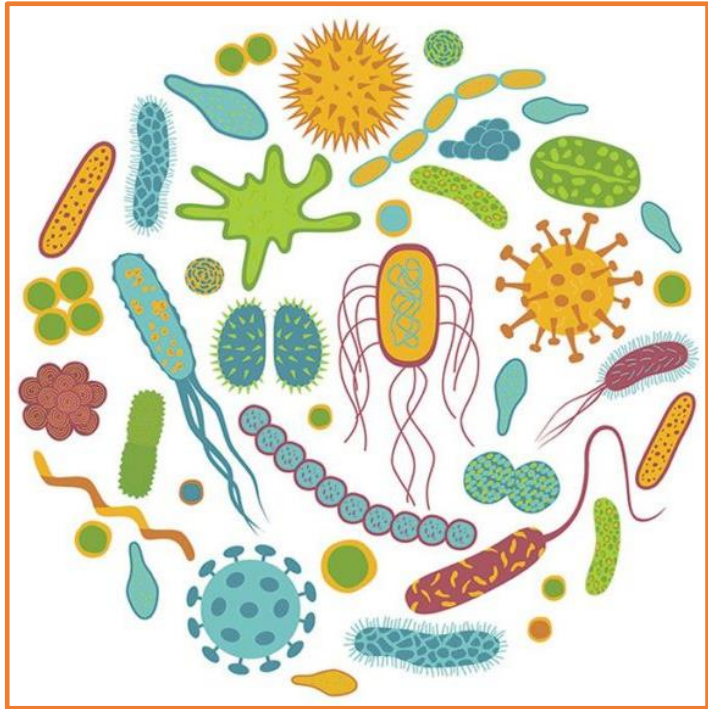
# Alfred Nissle





# Roy Fuller

“Microorganismo vivo que administrado na dose correta cause benefício ao hospedeiro” (Roy Fuller 1989)





The image shows three Pendulum brand probiotic bottles on a grey, textured surface. The bottles are arranged diagonally from top-left to bottom-right. The top-left bottle is white with a red band and is labeled 'Glucose Control'. The middle bottle is green and labeled 'GI Repair'. The bottom-right bottle is blue and labeled 'Akkermansia'. All bottles have black caps and labels with the Pendulum logo.

**NGP (Next Generation Probiotics)**

**AFU (Active Fluorescent Unit)**

Pendulum  
**Glucose Control**

MEDICAL PROBIOTIC WITH PREBIOTIC  
for optimal management of type 2 diabetes

30 CAPSULES

Pendulum

**GI Repair**

FOR RELIEF OF OCCASIONAL  
GUT DISCOMFORT

Butyrate-producing probiotic

30 CAPSULES (9g)

Pendulum

**Akkermansia**  
FOR GUT HEALTH

*Akkermansia muciniphila*

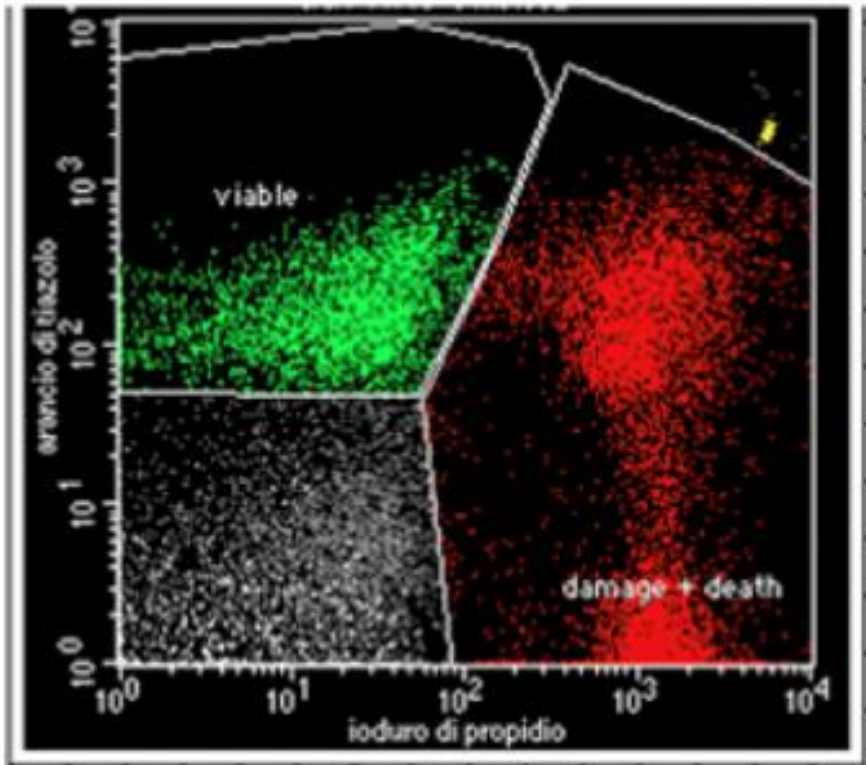
30 CAPSULES



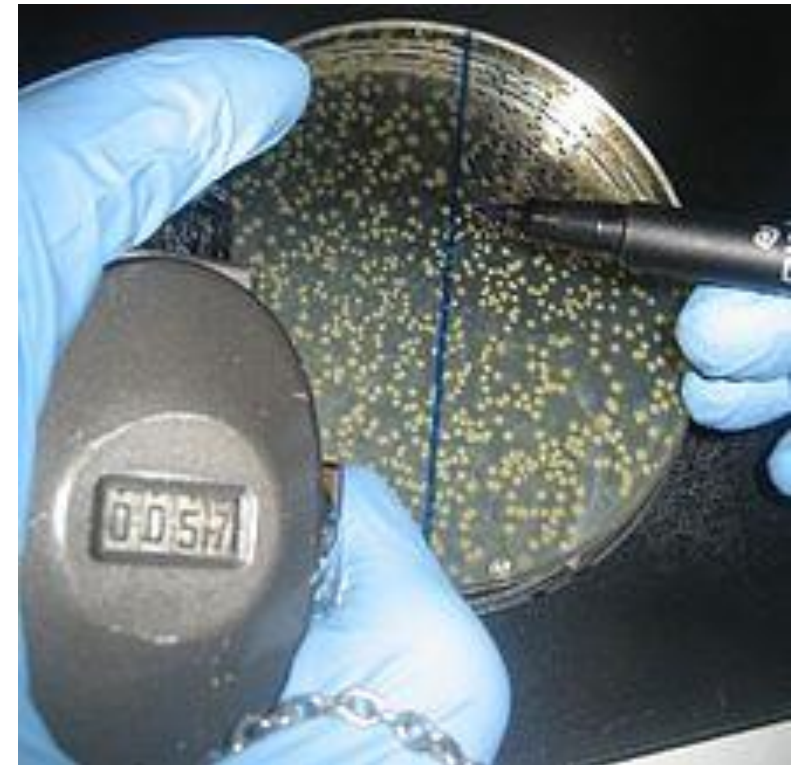
# AFU (Active Fluorescent Unit)

## VS

# CFU (Colony-forming Units)



## VS





# Manejo microbiológico





# Espécie vs Linhagem



- E. Coli NISLE 1917 
- E. coli enteropatogênica (EPEC),
- E. coli enterotoxigênica (ETEC),
- E. coli enteroinvasora (EIEC),
- E. coli enterohemorrágica (EHEC) ou E. coli produtora da toxina de Shiga (STEC),
- E. coli enteroagregativa (EAEC)
- E. coli aderente difusa (DAEC) 

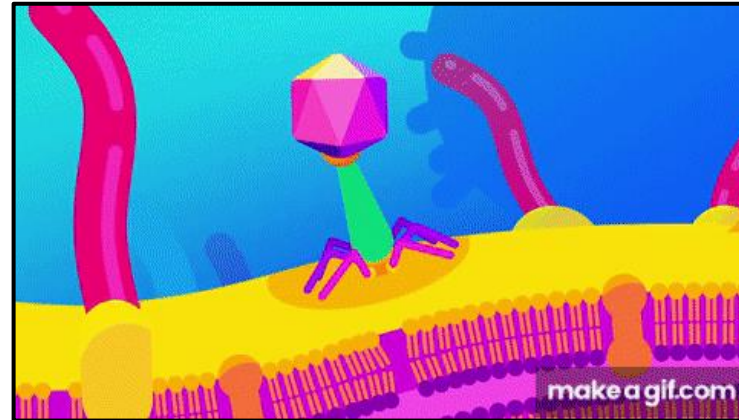


**Qual o verdadeiro efeito  
dos probióticos?**

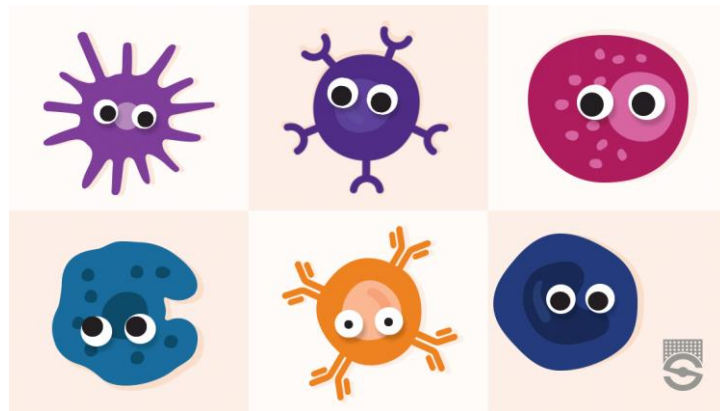
Produção de Vitaminas



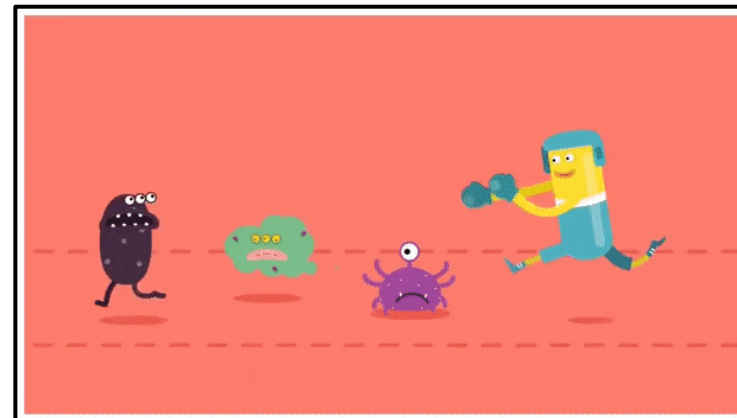
Efeito microbicida



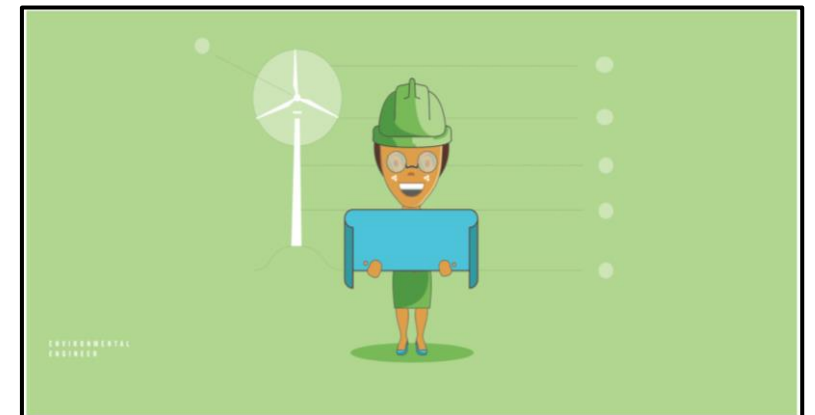
Produção de energia



Imunidade



Realocação de patógenos



Engenharia ambiental



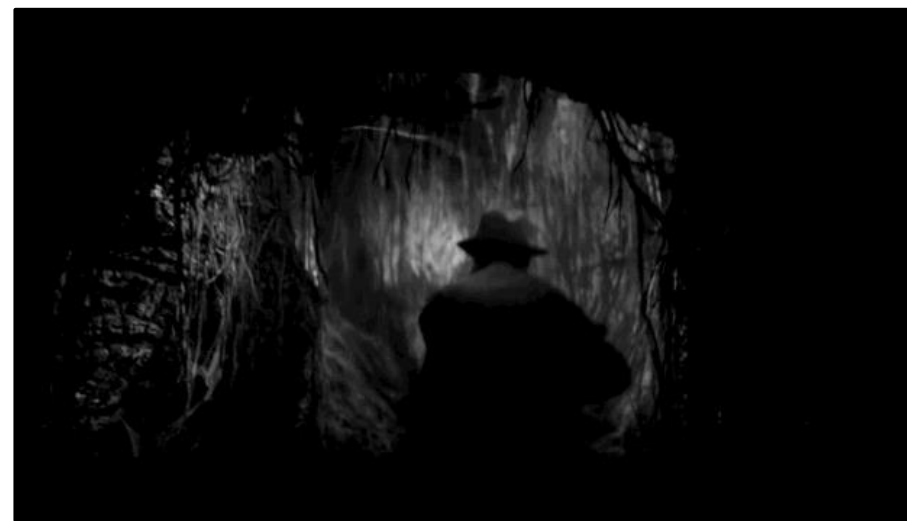
# Melhores horários para administração



Antes de dormir

Ao despertar

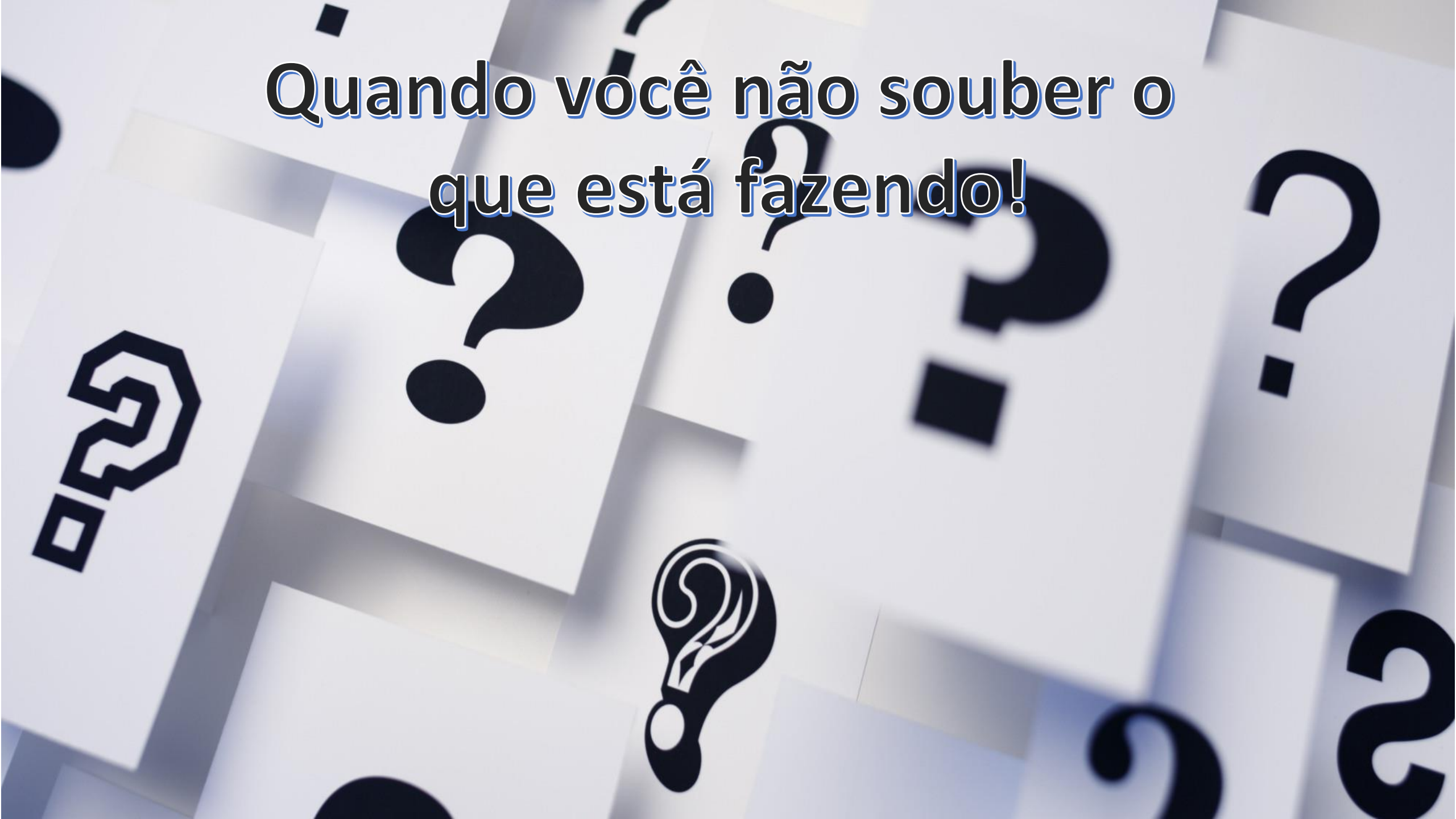
2 horas distante  
das grandes  
refeições



**Quando não usar  
probióticos?**



**Quando você não souber o  
que está fazendo!**



Quando não alterou o substrato  
fermentativo.





- **For those who are severely immunosuppressed**

(Stadlbauer, V. et al (2015). Immunosuppression and probiotics: Are they effective and safe? *Beneficial Microbes* 6(6):1-6.  
(Riquelme A.J, et al. (2003). *Saccharomyces cerevisiae* fungemia after *Saccharomyces boulardii* treatment in immunocompromised patients. *J Clin Gastroenterol.* 36(1):41-3)

- **For those who have pancreatitis**

(Gooszen, et al. (2004). Probiotic prophylaxis in patients with predicted severe acute pancreatitis (PROPATRIA): design and rationale of a double-blind, placebo-controlled randomised multicenter trial. *J. BMC Surg.* doi: 10.1186/1471-2482-4-12)

- **For patients who are in the ICU (UTI)**

(Stadlbauer, V. et al (2015). Immunosuppression and probiotics: Are they effective and safe? *Beneficial Microbes* 6(6):1-6. DOI: 10.3920/BM2015.0065)

- **For those that have melaena (dark blood in their faeces)**

- **For those with a central venous catheter**

(Cassone M, et al. (2003). Outbreak of *Saccharomyces cerevisiae* subtype *boulardii* fungemia in patients neighboring those treated with a probiotic preparation of the organism. *J Clin Microbiol.* 2003 Nov; 41(11):5340-3)

- **For infants with short bowel syndrome**

(Kunz, A.N. et al (2004). Two cases of *Lactobacillus* bacteremia during probiotic treatment of short gut syndrome. *J Pediatr Gastroenterol Nutr.* 38(4):457-8.)

- **For patients with open wounds following major surgery**

(Lundell L1. (2011) Use of probiotics in abdominal surgery; *Dig Dis.* 29(6):570-3. doi: 10.1159/000332984. Epub 2011 Dec 12.)

# Alergia por hipersensibilidade





# Probióticos resistentes a antibióticos

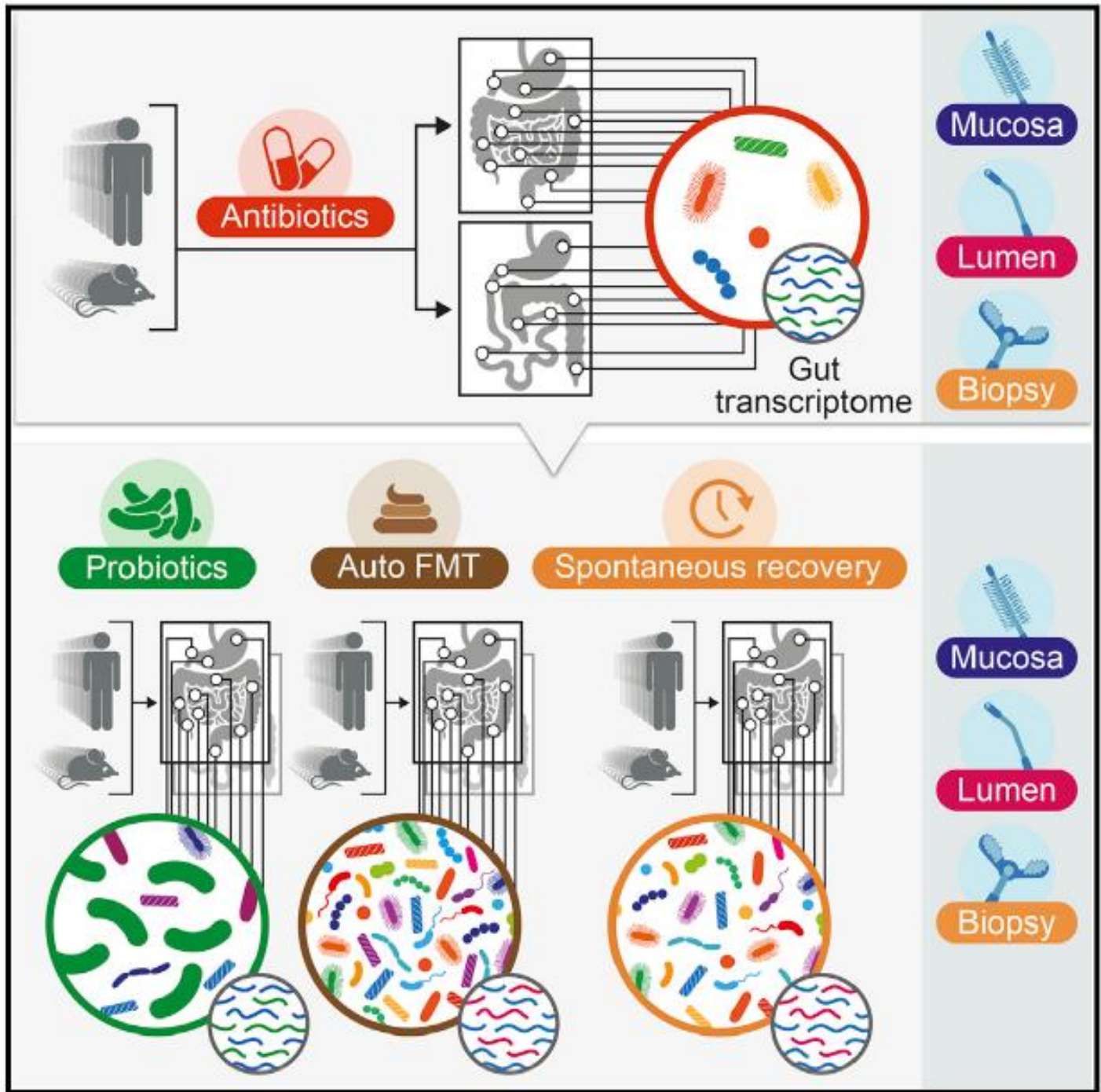


Article

**Cell**

**Post-Antibiotic Gut Mucosal Microbiome  
Reconstitution Is Impaired by Probiotics and  
Improved by Autologous FMT**







# The Role of Gut Microbiota in Neuropsychiatric Diseases – Creation of An Atlas-Based on Quantified Evidence

*Bruno Bonnechère<sup>1,2</sup>, Najaf Amin<sup>2</sup> and Cornelia van Duijn<sup>2\*</sup>*

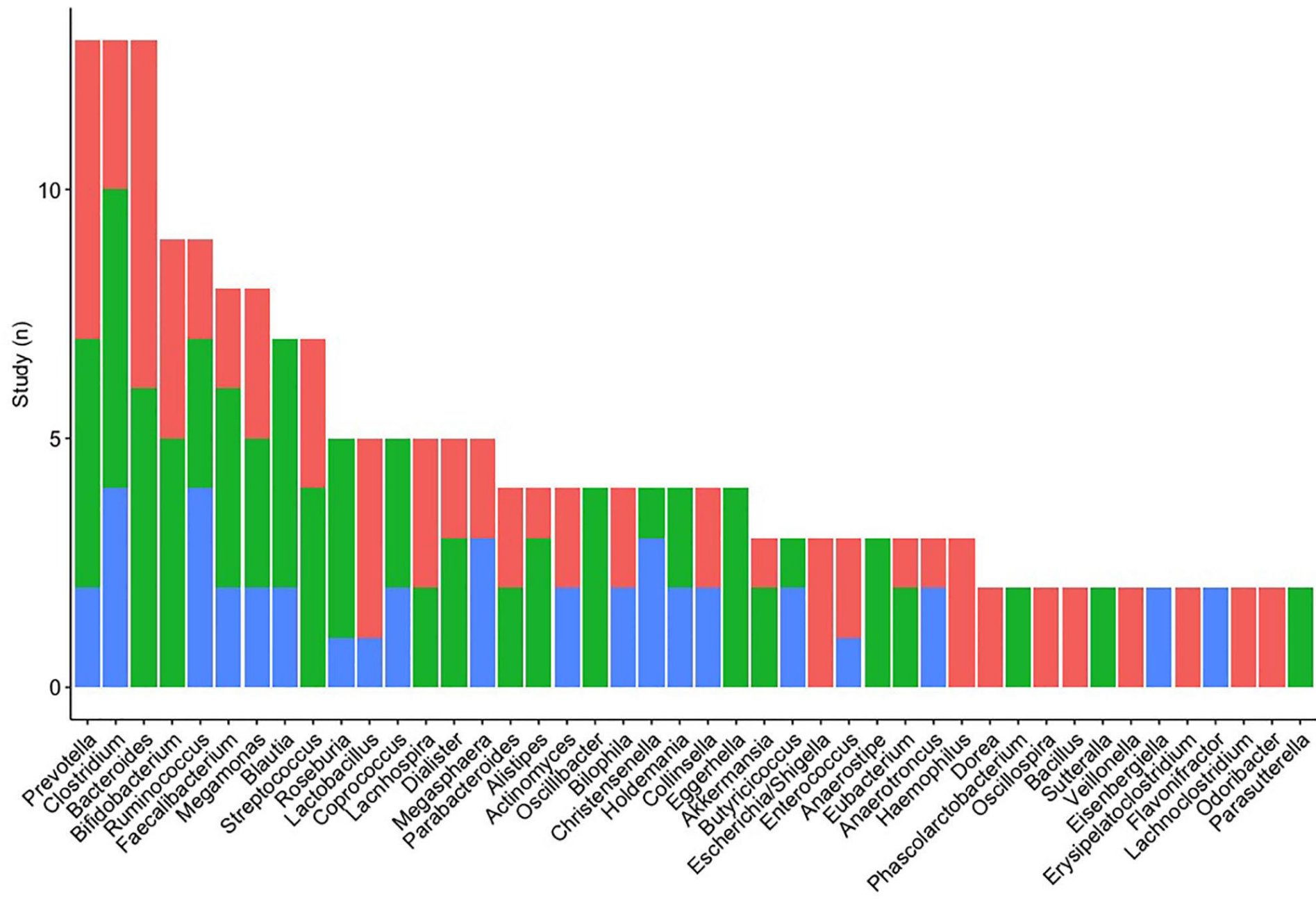
<sup>1</sup> REVAL Rehabilitation Research Center, Faculty of Rehabilitation Sciences, Hasselt University, Diepenbeek, Belgium,

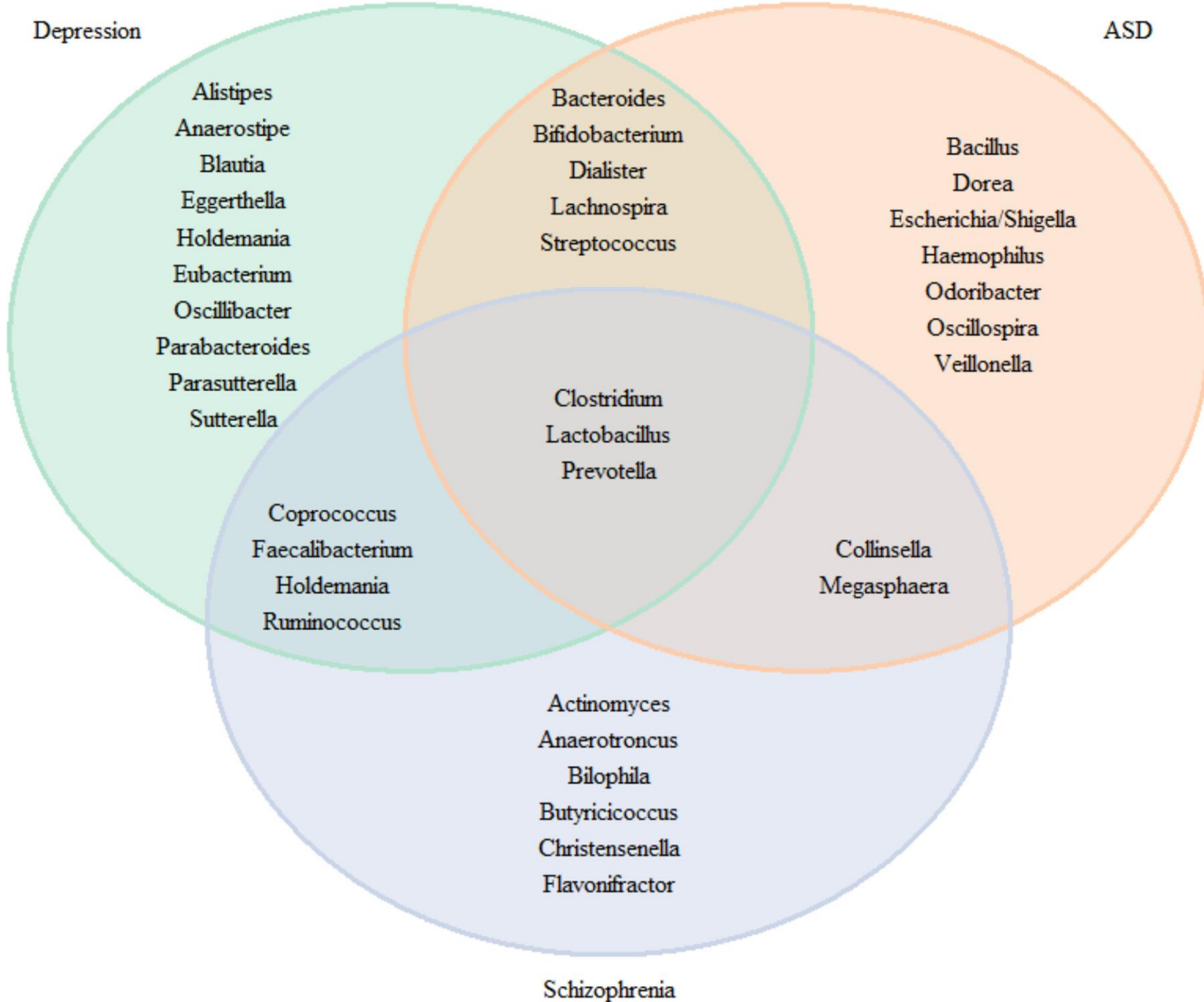
<sup>2</sup> Nuffield Department of Population Health, University of Oxford, Oxford, United Kingdom



# Genera associated with psychiatric disorders

Pathology ■ Autism Spectrum Disorder ■ Major Depressive Disorder ■ Schizophrenia







# Indicações para administração de probióticos

## Gastrointestinal Conditions

Antibiotic-Associated Diarrhea

Clostridium difficile Infection

Constipation

Diarrhea Caused by Cancer Treatment

Diverticular Disease

Inflammatory Bowel Disease

Irritable Bowel Syndrome

Traveler's Diarrhea

# Conditions in Infants

Infant Colic

Necrotizing Enterocolitis

Sepsis in Infants

# Dental Disorders

Dental Caries (Tooth Decay)

Periodontal Diseases (Gum Disease)



# Conditions Related to Allergy

Allergic Rhinitis (Hay Fever)

Asthma

Atopic Dermatitis

Prevention of Allergies

# Other Conditions

Acne

Hepatic Encephalopathy

Upper Respiratory Infections

Urinary Tract Infections

# Excesso de proteínas e aminoácidos livres



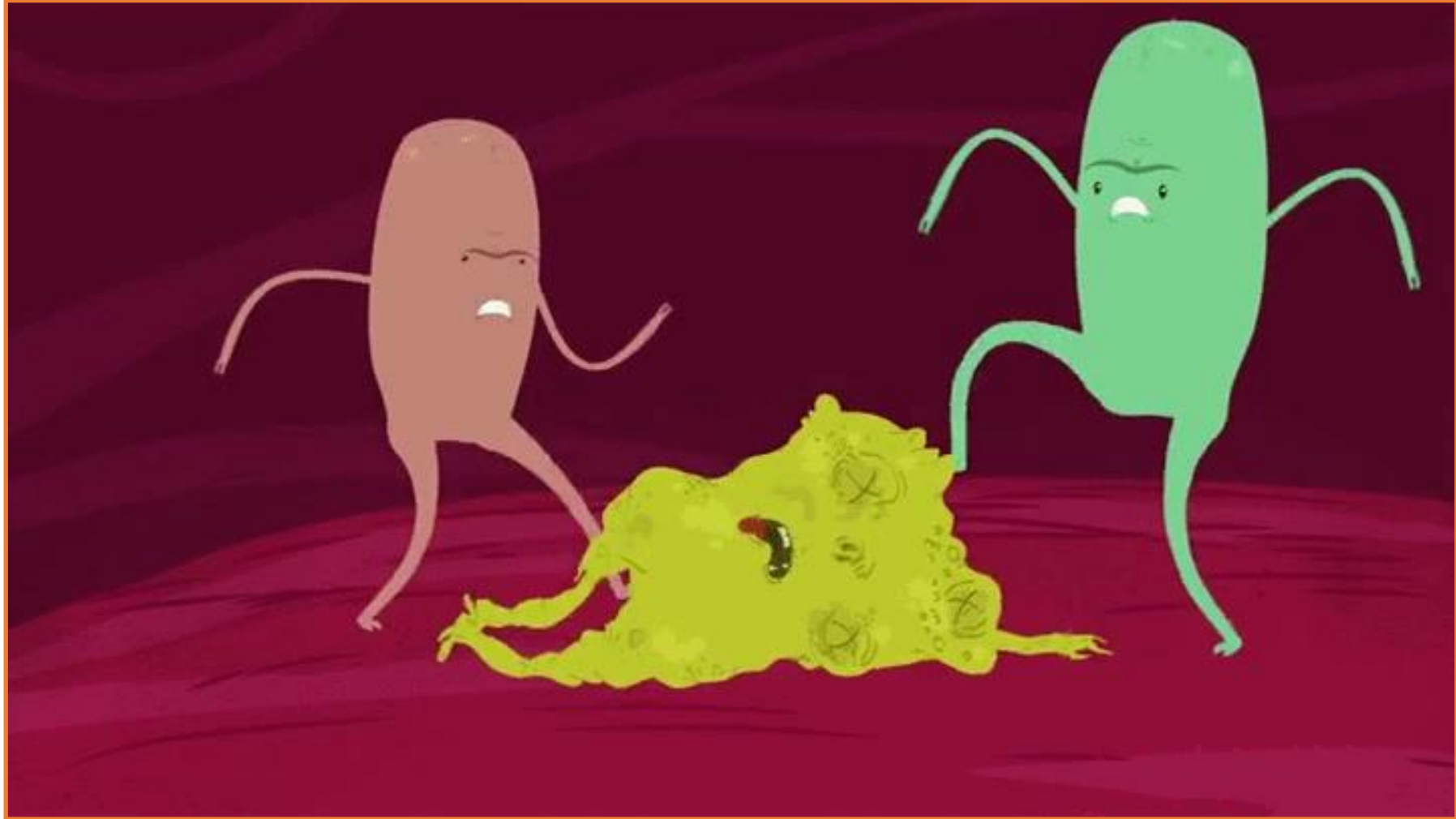


# Reeducação alimentar





# Realocação de patógenos

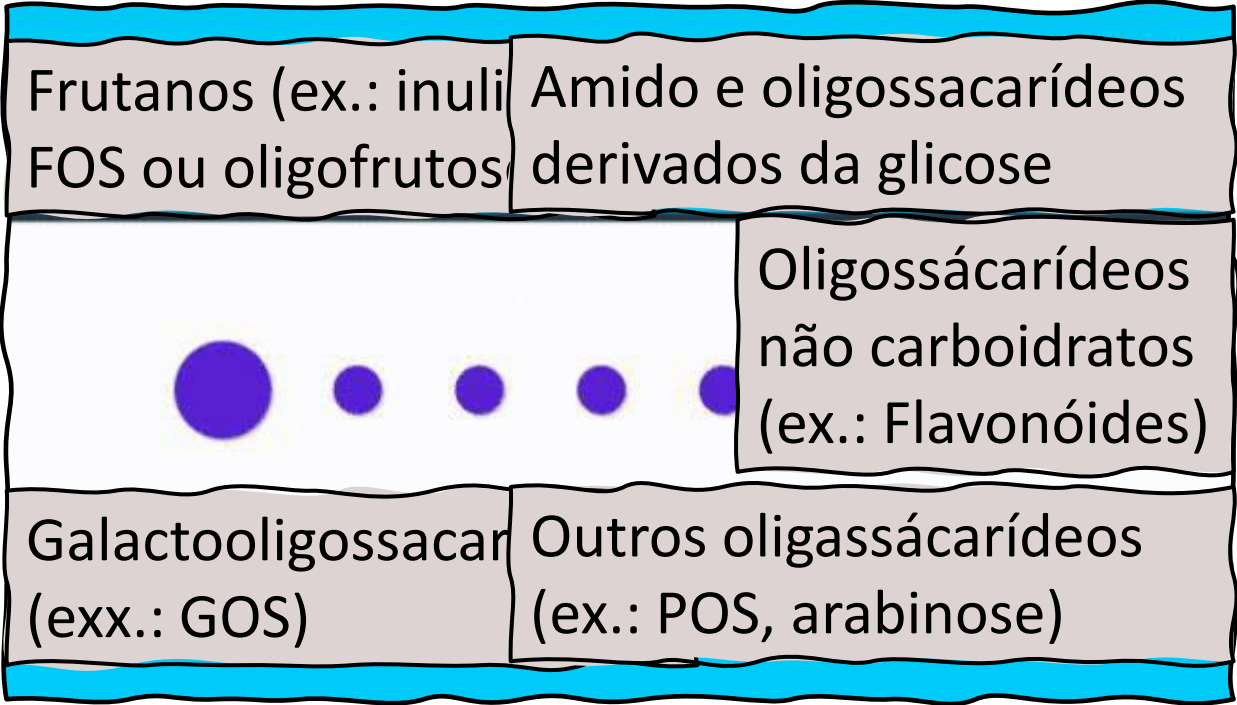


*“Ingrediente seletivamente fermentado que resulta em mudanças específicas na composição e / ou atividade da microbiota gastrointestinal, conferindo assim benefício (s) à saúde do hospedeiro”.*

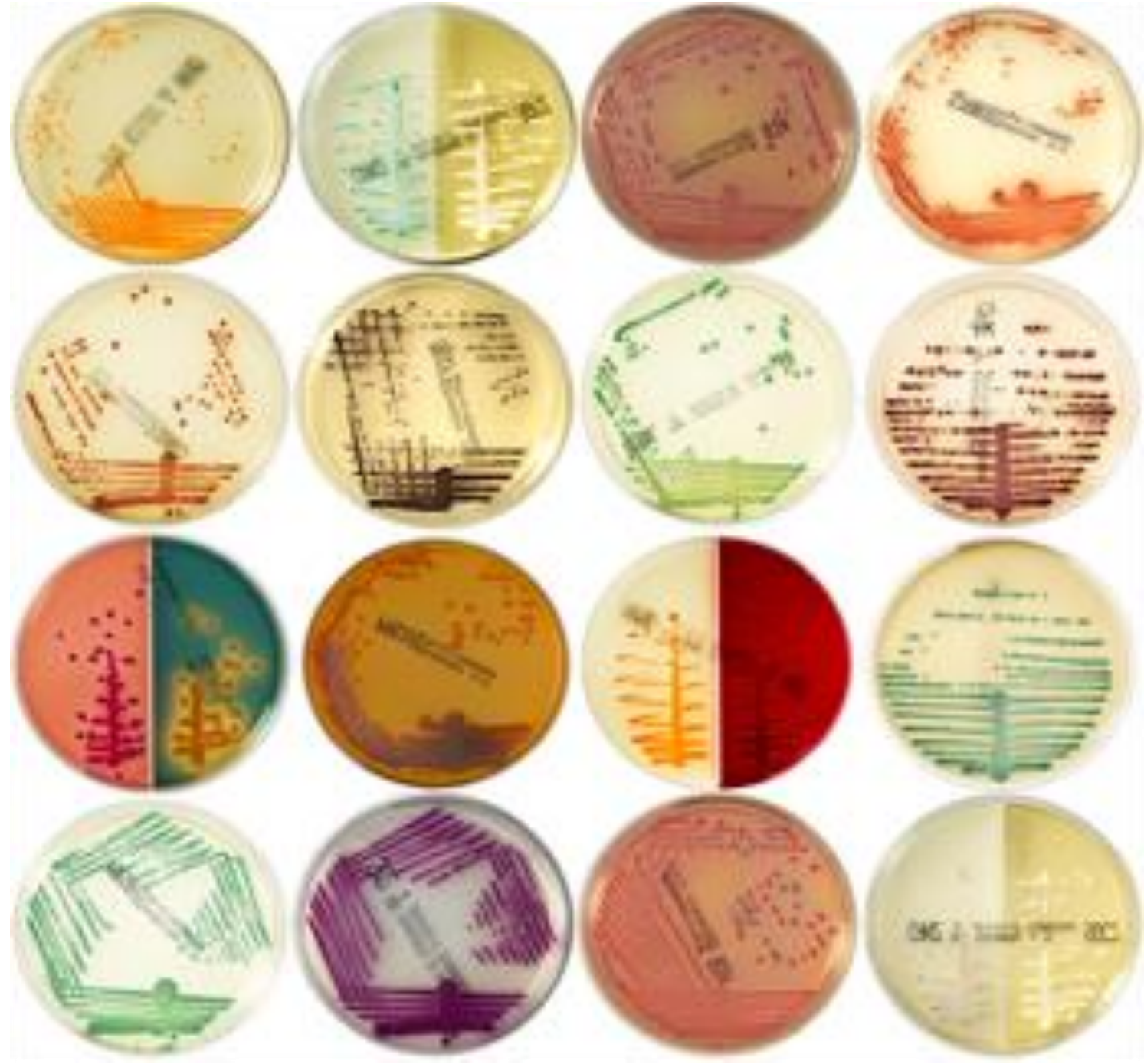
G.R. Gibson, K.P. Scott, R.A. Rastall, K.M. Tuohy, A. Hotchkiss, A. Dubert-Ferrandon, et al. Dietary prebiotics: current status and new definition *Food Sci Technol Bull Funct Foods*, 7 (2010), pp. 1-19

Os prebióticos podem exercer benefícios não apenas no cólon, mas em outros locais, como na cavidade oral, no trato urogenital e na pele.





# Os meios de cultura







# OBRIGADO PELA ATENÇÃO



Happy Poo ♡





