



Archaea microbial candidates in next-generation probiotics development

Jean François Brugere, Wajdi Ben Hania, Marie-Edith Arnal, Céline Ribière, Nathalie Ballet, Pascal Vandekerckove, Bernard Ollivier, Paul W. O'toole

► To cite this version:

Jean François Brugere, Wajdi Ben Hania, Marie-Edith Arnal, Céline Ribière, Nathalie Ballet, et al.. Archaea microbial candidates in next-generation probiotics development. 9. Meeting on Probiotics, Prebiotics and New Foods, Nutraceuticals and Botanicals for Nutrition and Human and Microbiota, Sep 2017, Rome, Italy. 10.1097/MCG.0000000000001043 . hal-02737967

HAL Id: hal-02737967

<https://hal.inrae.fr/hal-02737967>

Submitted on 2 Jun 2020

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.



Search by title, author, I

Advanced
Search

Journal of Clinical
Gastroenterology. Publish
Ahead of Print(); APR 2018
DOI:
10.1097/MCG.0000000000001043
, PMID: [29668558](#)
Issn Print: 0192-0790
Publication Date:
2018/04/17



Archaea: Microbial Candidates in Next-generation Probiotics Development

Jean-François Brugère; Wajdi Ben Hania; Marie-Edith
Arnal; Céline Ribièrre; Nathalie Ballet; Pascal
Vandeckerkove; Bernard Ollivier; Paul W. O'Toole

[+ Author Information](#)

[Check Ovid for access](#)

Abstract

[View on Journal Site](#)

Pharmabiotics and probiotics in current use or under development belong to 2 of 3 domains of life, Eukarya (eg, yeasts) and Bacteria (eg, lactobacilli). Archaea constitute a third domain of life, and are currently not used as probiotics, despite several interesting features. This includes the absence of known pathogens in humans, animals, or plants and the existence of some archaea closely associated to humans in various microbiomes. We promote the concept that some specific archaea that naturally thrive in the human gut are potential

Related Articles

[MICROBIAL ECOLOGY:](#)

[Archaea revealed from
genomes](#)

Nature 2016; 530(7588): 9.

[Probiotics Reduce Gut
Microbial Translocation
and Improve Adult Atopic
Dermatitis](#)

Journal of Clinical
Gastroenterology 2014;
48(1): 95–96.

[Poster Section 3:
Probiotics](#)

Journal of Veterinary
Pharmacology and
Therapeutics 2018; 41():
99–100.

next-generation probiotics that can be rationally selected on the basis of their metabolic phenotype not being encountered in other human gut microbes, neither Bacteria nor Eukarya. The example of the possible bioremediation of the proatherogenic compound trimethylamine into methane by archaeal microbes is described.

[Check Ovid for access](#)

[View on Journal Site](#)

[About us](#)

[Privacy Policy](#)

[Terms of Use](#)

[Site Map](#)

Copyright © 2018 Ovid Technologies, Inc., and its partners and affiliates. All Rights Reserved.
Some content from MEDLINE®/PubMed®, a database of the U.S. National Library of Medicine.