

**Name of Journal:** *World Journal of Gastroenterology*

**Manuscript NO:** 50124

**Manuscript Type:** ORIGINAL ARTICLE

### Basic Study

*Clostridium butyricum* alleviates the intestinal low-grade inflammation in TNBS-induced irritable bowel syndrome in mice by regulating the functional status of lamina propria dendritic cells

Zhao Q *et al.* LPDCs-associated IBS probiotic treatment

Qin Zhao, Wen-Rong Yang, Xiao-Hong Wang, Gai-Qin Li, Lei-Qi Xu, Xiao Cui, Yang Liu, Xiu-Li Zuo

### Abstract

#### BACKGROUND

Irritable bowel syndrome (IBS) is one of the most common functional gastroenterological diseases characterized by abnormal visceral sensitivity and

### Match Overview

1	Crossref 58 words Wang, Peng, Fei-Xue Chen, Chao Du, Chang-Qing Li, Yan-Bo Yu, Xiu-Li Zuo, and Yan-Qing Li. "Increased producti	1%
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<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3278703>

Oral administration of *Clostridium butyricum* M 588, ... The highest levels of IL-18 were localized in intestinal epithelial cells, then macrophages and dendritic cells of the lamina propria. ... Kofronova O, et al. Segmented filamentous bacteria in a defined bacterial cocktail induces intestinal inflammation in SCID mice reconstituted with ...

Cited by: 25

Author: T. Hudcovic, J. Kolinska, J. Klepetar, R. ...

Publish Year: 2012

### [Probiotic Clostridium butyricum Improves the Growth ...](#)

[https://www.researchgate.net/publication/328292135\\_Probiotic\\_Clostridium\\_butyricum...](https://www.researchgate.net/publication/328292135_Probiotic_Clostridium_butyricum...)

This study investigated the effects of *Clostridium butyricum* (CB) on the growth performance, intestinal immune, and gut microbiota of weaning rex rabbits. A total of 60 healthy female rabbits (5 ...

### [A Single Strain of Clostridium butyricum Induces ...](#)

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A Single Strain of *Clostridium butyricum* Induces Intestinal IL-10-Producing Macrophages to Suppress Acute Experimental Colitis in Mice Article in Cell host & microbe 13(6):711-22 · June 2013 with ...

### [Modulation of immunity and inflammatory gene expression ...](#)

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4229528>

Nov 14, 2014 · Modulation of immunity and inflammatory gene expression in the gut, in inflammatory diseases of the gut and in the liver by probiotics ... The knockdown of MyD88 did not affect *Clostridium butyricum*-induced elevated levels of ... Muñoz-Quezada S, Gomez-Llorente C, Matencio E, Bernal MJ, Romero F, Gil A. Human intestinal dendritic cells ...

Cited by: 98

Author: Julio Plaza-Díaz, Carolina Gomez-Llorent...

Publish Year: 2014

### [Evidence of the Anti-Inflammatory Effects of Probiotics ...](#)

<https://www.mdpi.com/2072-6643/9/6/555/htm> ▾

Probiotics and synbiotics are used to treat chronic diseases, principally due to their role in immune system modulation and the anti-inflammatory response. The present study reviewed the effects of probiotics and synbiotics on intestinal chronic diseases in in vitro, animal, and human studies, particularly in randomized clinical trials. The selected probiotics exhibit in vitro anti ...

Cited by: 53

Author: Julio Plaza-Díaz, Francisco Javier Ruiz-O...

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### (PDF) Clostridium Butyricum CGMCC0313.1 Modulates Lipid ...

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**Clostridium Butyricum CGMCC0313.1** Modulates Lipid Profile, Insulin Resistance and Colon

Homeostasis in Obese Mice Article (PDF Available) in PLoS ONE 11(4):e0154373 · ...

### Mulberry juice freeze-dried powder attenuates the disease ...

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**Irritable bowel syndrome** (IBS) is a common disorder in gastrointestinal system and impairs the quality of life of the patients. **Clostridium butyricum** (CB) is a probiotics that has been used in ...

**Author:** Wang Yang, Toshi Hatabu

### Posters - - 2017 - Journal of Digestive Diseases - Wiley ...

[onlinelibrary.wiley.com/doi/10.1111/1751-2980.12518/full](https://onlinelibrary.wiley.com/doi/10.1111/1751-2980.12518/full)

**Small intestinal bacteria overgrowth** (SIBO) is common in patients with **irritable bowel syndrome** (IBS), and **symptoms of IBS** improve after treatment of SIBO with antibiotics. Although the pathogenesis of SIBO specifically in IBS patients is not well defined, **intestinal dysmotility** ...

### Activating metabotropic glutamate receptor-7 attenuates ...

<https://www.spandidos-publications.com/10.3892/ijmm.2018.4022> ▾

Dec 11, 2018 · Zhao K, Yu L, Wang X, He Y and Lu B: **Clostridium butyricum** regulates visceral

**hypersensitivity of irritable bowel syndrome** by inhibiting colonic mucous low grade inflammation through its action on NLRP6.

**Cited by:** 1

**Author:** Limei Shao, Yanbing Liu, Junhua Xiao, Qun...

**Publish Year:** 2018

### Gnotobiology and the Study of Complex Interactions between ...

<https://www.sciencedirect.com/science/article/pii/B9780124158474000082>

The ability of SFB to induce Th17 cells in the host lamina propria resulted from a fortuitous observation that the same in-bred mouse strain from different suppliers (Taconic or Jackson Laboratories) differed considerably in the **percentage of LP** Th17 cells (Ivanov et al., 2009). Comparative analysis of the microbiota in these two sources of mice revealed SFB to be absent in the Jackson mice that have **low percentage** ...

**Cited by:** 2

**Author:** Helena Tlaskalova-Hogenova, Miloslav Kve...

**Publish Year:** 2015

### Evidence of the Anti-Inflammatory Effects of Probiotics ...

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Clostridium butyricum alleviates the intestinal low-grade inflammation in TNBS-in

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## A Review on Chemical-Induced Inflammatory Bowel Disease ...

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4146629>

Aug 13, 2014 · Furthermore, **TNBS-induced** colitis model is also frequently used as post inflammatory **irritable bowel syndrome** (PI-IBS) model as the major features of PI-IBS such as visceral hypersensitivity, dysfunction of motility, and alteration in permeability or secretion are also exhibited in TNBS model . TNBS results in **intestinal inflammation** which is ...

Cited by: 166

Author: Puneet Kaur Randhawa, Kavinder Singh, Ni...

Publish Year: 2014

## Mulberry juice freeze-dried powder attenuates the disease ...

[https://www.researchgate.net/publication/331172398\\_Mulberry\\_juice\\_freeze-dried\\_powder...](https://www.researchgate.net/publication/331172398_Mulberry_juice_freeze-dried_powder...)

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[onlinelibrary.wiley.com/doi/10.1111/1751-2980.12518/full](https://onlinelibrary.wiley.com/doi/10.1111/1751-2980.12518/full)

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## Gnotobiology and the Study of Complex Interactions between ...

<https://www.sciencedirect.com/science/article/pii/B9780124158474000082>

Subsets of IBS patients have **low-grade inflammation** in the gut ... The ability of SFB to induce Th17 **cells** in the host **lamina propria** resulted from a fortuitous observation that the ... L. Paulin, J. Corander, E. Malinen, J. Apajalahti, A. PalvaThe fecal microbiota of **irritable bowel syndrome** patients differs significantly from that of healthy ...

Cited by: 2

Author: Helena Tlaskalova-Hogenova, Miloslav Kve...

Publish Year: 2015

## Evidence of the Anti-Inflammatory Effects of Probiotics ...