

Lactobacillus balances gut microbiome and improves chronic-alcohol-induced liver injury

December 10 2019

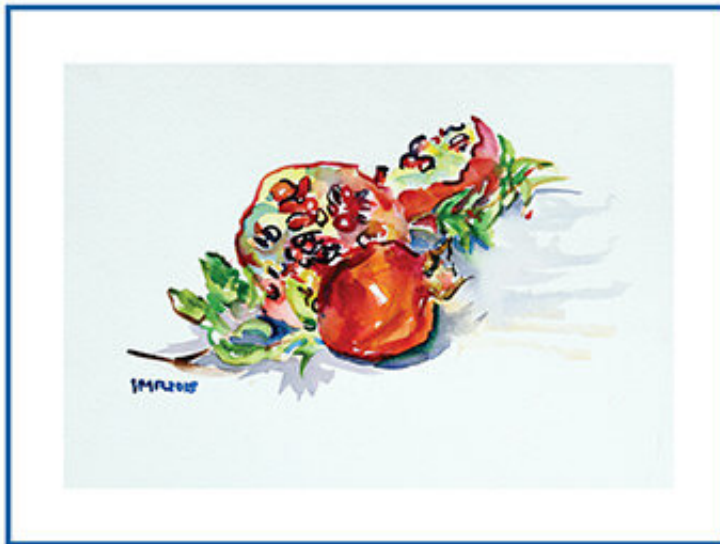
VOLUME 22, NUMBER 11

NOVEMBER 2019

ISSN: 1096-620X

Journal of MEDICINAL FOOD

 Official Journal of the Korean Society of Food Science and Nutrition



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www.liebertpub.com/jmf

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Researchers demonstrated that *Lactobacillus rhamnosus* can dose-dependently reestablish a balanced intestinal microbiome and counter the liver-damaging effects of alcohol consumption in mice to reverse the results of chronic alcohol-induced liver injury. The design, results, and implications of this new study are published in *Journal of Medicinal Food*.

The article entitled "Lactobacillus rhamnosus Granules Dose-Dependently Balance Intestinal Microbiome Disorders and Ameliorate Chronic Alcohol-Induced Liver Injury" was coauthored by Yuhua Wang and colleagues from Jilin Agricultural University, National Processing Laboratory for Soybean Industry and Technology, and National Engineering Laboratory for Wheat and Corn Deep Processing, Changchun, China.

In this study, mice consumed alcohol for 8 weeks and were fed *Lactobacillus rhamnosus* granules (LGG) the last 2 weeks, in varying doses (low, medium, and high) together with a [high fat diet](#). The researchers showed that LGG administration dose-dependently improved alcohol-induced [liver injury](#) by reducing fat accumulation and the inflammatory response in liver. LGG consumption also ameliorated the liver damage. The probiotic effect of the LGG restored a healthy balance in the gut microbiome, which was damaged by the alcohol consumption. LGG reduced the number of gram-negative bacteria and increased [gram-positive bacteria](#), including in the ileum and cecum.

"This demonstration of the impact of a probiotic intervention correcting alcohol-induced dysbiosis and reducing liver inflammation and fat accumulation has exciting potential in the prevention and treatment of alcohol-induced liver disease as well as non-alcoholic fatty liver disease," states *Journal of Medicinal Food* Editor-in-Chief Michael Zemel, Ph.D.,

Professor Emeritus, The University of Tennessee and Chief Scientific Officer, NuSirt Biopharma.

More information: Zelin Gu et al, Lactobacillus rhamnosus Granules Dose-Dependently Balance Intestinal Microbiome Disorders and Ameliorate Chronic Alcohol-Induced Liver Injury, *Journal of Medicinal Food* (2019). [DOI: 10.1089/jmf.2018.4357](https://doi.org/10.1089/jmf.2018.4357)

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Citation: Lactobacillus balances gut microbiome and improves chronic-alcohol-induced liver injury (2019, December 10) retrieved 27 April 2024 from <https://medicalxpress.com/news/2019-12-lactobacillus-gut-microbiome-chronic-alcohol-induced-liver.html>

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