

Name of Journal: *World Journal of Gastroenterology*

Manuscript NO: 54645

Manuscript Type: MINIREVIEWS

Role of $\gamma\delta$ T cells in liver diseases and its relationship with intestinal microbiota

Qi-Hui Zhou, Feng-Tian Wu, Lan-Tian Pang, Tian-Bao Zhang, Zhi Chen

Abstract

$\gamma\delta$ T cells are unconventional T lymphocytes that bridge innate and adaptive immunity. Based on the composition of T cell receptor and the cytokines produced, $\gamma\delta$ T cells can be divided into diverse subsets that may be present at different locations, including the liver, epithelial layer of the gut, the dermis and so on. Many of these cells perform specific functions in liver diseases,

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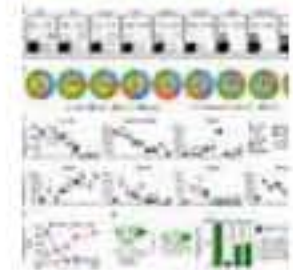
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Feb 14, 2015 · Moreover, interactions between **gut microbiota** and **the liver** [8 - 12] or **brain** [13 - 15] have been analyzed. **The composition of the microbiota** is also associated with various **diseases**. In this review, we summarize the current understanding of **the role of gut microbiota**, especially in **relation to liver diseases**,...

Cited by: 80 **Author:** Masami Minemura, Yukihiro Shimizu

Publish Year: 2015

The microbiota maintain homeostasis of liver-resident $\gamma\delta$ T ...



<https://www.nature.com/articles/ncomms13839>

Jan 09, 2017 · However, although **hepatic $\gamma\delta$ T cells** are involved in several **liver immune diseases** 8, their **physiological** characteristics, and why **the liver** contains such high levels of **$\gamma\delta$ T cells**...

Cited by: 51 **Author:** Fenglei Li, Xiaolei Hao, Yongyan ...

Publish Year: 2017

Intestinal microbiota in health and disease: Role of ...

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Nov 07, 2014 · The alteration of **intestinal barrier function**, with increased gut permeability, has a major **role** in IBS; nevertheless, **its relationship** with altered **microbiota** remains to be fully understood. Modulation of enteric sensorimotor **function**, through alterations in bile acid metabolism by **microbiota**, has been described in several in vitro studies[59].

Cited by: 266 **Author:** Rafael Tojo, Adolfo Suárez, Marta G Cle...

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Targeting gut **microbiota** modulation represents a promising strategy for hepatoprotection. Many natural products could protect the **liver** from various injuries or mitigate hepatic disorders by reverting gut dysbiosis, improving **intestinal** permeability, altering the ...

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Jul 31, 2019 - Based on the above studies, there is likely an association between the IM and **liver disease**, but a causal **relationship** has yet to be confirmed. Several studies looking at the effect of IM manipulation by pre-, pro- and synbiotics, as well as faecal **microbiota** transplant (FMT), suggest that the IM has a **role in liver diseases**.

Cited by: 3

Author: Katherine Jp Schwenger, Katherine Jp Sc...

Publish Year: 2019

[Intestinal microbiota in health and disease: Role of ...](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4223251)

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Nov 07, 2014 - **Clostridium difficile** infection. The only **disease** process in which a dysbiotic microbiota plays an undoubtedly proven **role** is in the case of **Clostridium difficile** infection (CDI). **Treatment** with antibiotics transiently alters the microbiota composition, providing the ...

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Publish Year: 2018

[The Roles of Liver-Resident Lymphocytes in Liver Diseases](#)

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It is hypothesized that **liver**-resident or memory **$\gamma\delta$ T cells** have a protective effect against infection or tumor formation, and thus exert a critical **role** in local hepatic immunosurveillance . The exact characteristics of **liver**-resident or memory **$\gamma\delta$ T cells** and their **roles in liver-related diseases** require further investigation.

Author: Yanan Wang, Cai Zhang **Publish Year:** 2019

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