Title: The Role of Small Heterodimer Partner (SHP) in NAFLD Improvement after Vertical Sleeve Gastrectomy in Mice.

Authors: Andriy Myronovych, MD, PhD¹, Rosa-Maria Salazar-Gonzales, PhD¹, Karen K. Ryan, PhD³, Lili Miles MD¹, Wujuan Zhang, PhD², Pinky Jha, MS², Li Wang PhD⁴, Kenneth DR Setchell, PhD², Randy J Seeley, PhD³, Rohit Kohli, MBBS, MS^{1,3}

Author Affiliations: ¹ Department of Pediatrics, Division of Gastroenterology, Hepatology and Nutrition, Cincinnati Children's Hospital Medical Center, 3333 Burnet Avenue, Cincinnati, Ohio, USA. ² Department of Pathology and Laboratory Medicine, Cincinnati Children's Hospital Medical Center, 3333 Burnet Avenue, Cincinnati, Ohio, USA. ³ Metabolic Diseases Institute, Department of Internal Medicine, University of Cincinnati College of Medicine, 2170 E. Galbraith Road, Cincinnati, Ohio, USA. ⁴ Departments of Medicine and Oncological Sciences, Huntsman Cancer Institute, University of Utah School of Medicine, 30 North 1900 East SOM 4R118, Salt Lake City, Utah, USA.

Andriy Myronovych Andriy.myronovych@cchmc.org

Rosa-Maria Salazar-Gonzales Rosa Maria. Salazar Gonzalez@cchmc.org

Karen K. Ryan ryank2@ucmail.uc.edu

Lili Miles <u>Lili.Miles@cchmc.org</u>

Wujuan Zhang Wujuan. Zhang@cchmc.org

Pinky Jha <u>pinkyj76@yahoo.com</u>

Li Wang <u>l.wang@hsc.utah.edu</u>

Kenneth DR Setchell Kenneth.Setchell@cchmc.org

Randy J Seeley <u>seeleyrj@ucmail.uc.edu</u>

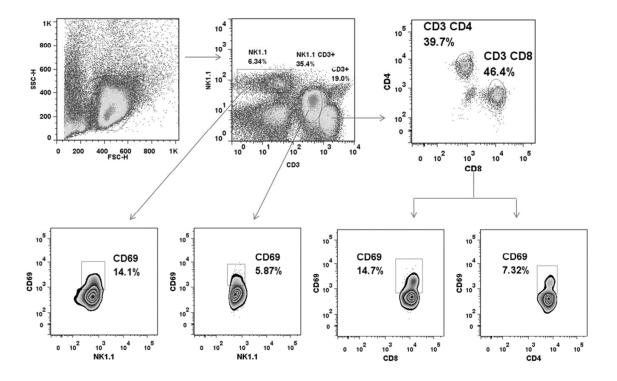
Corresponding author contact information: Rohit Kohli, MBBS, MS, Department of Pediatrics, Division of Gastroenterology, Hepatology and Nutrition, Cincinnati Children's Hospital Medical Center, MLC 2010, 3333 Burnet Avenue, Cincinnati, Ohio, USA, 45229. Tel.: 1-513-803-0908, Fax: 1-513-803-2785, E-mail: rohit.kohli@cchmc.org

SUPPLEMENTARY DATA:

FIGURE 1

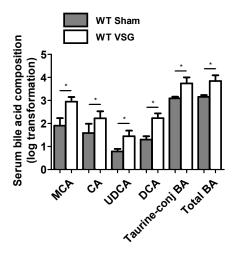
Liver tissue flow cytometry.

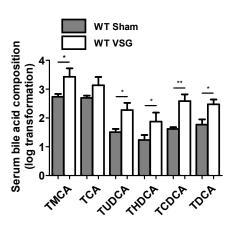
Detection of the CD3+CD4+CD69+, CD3+CD8+CD69+ and CD3+NK+CD69+ and NK+CD69+ immune cell subpopulations in the liver by flow cytometry. Dot plots show different cells subsets after gating in the corresponding cell markers.



Serum BA composition analysis of WT Sham and WT VSG mice at day 60 post-surgery: unconjugated, total taurine-conjugated and total BA levels (left) and individual taurine-conjugated BA levels (right).

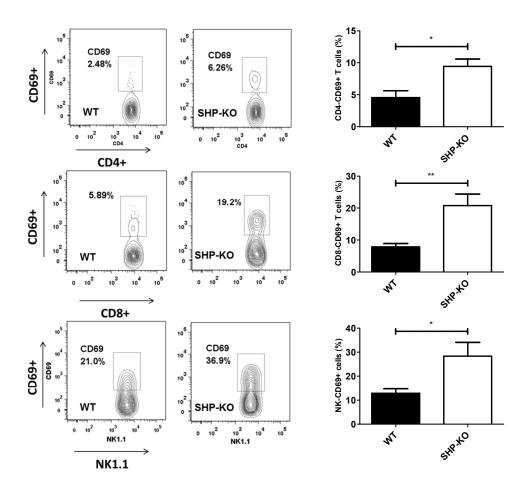
The majority of BA and, as a result, total BA levels, were significantly higher in serum of WT VSG compared to WT Sham mice. The following BA are indicated: muricholic acid (MCA), cholic acid (CA), ursodeoxycholate (UDCA), deoxycholate (DCA), tauromuricholate (TMCA), taurocholate (TCA), tauroursodeoxycholate (TUDCA), taurodeoxycholate (TCDCA), taurodeoxycholate (TDCA). N: WT Sham=4, WT VSG =6. (*=p<0.05, **=p<0.01, t-test).





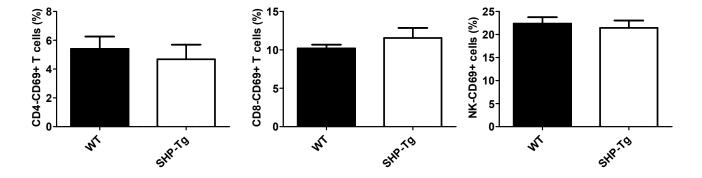
Immune cell subpopulations in the livers of WT and SHP-KO mice after eight week HFD period.

The ratios of T lymphocyte CD4-CD69+, CD8-CD69+ and NK-CD69+ immune cells were much higher in the SHP-KO vs. WT mice. Flow cytometry dot plots of the representative samples from both groups are shown. Bar graphs show the average values ± SEM of both groups. N: WT=6, SHP-KO=7. (*=p<0.05, **=p<0.01, t-test).



Immune cell subpopulations in the livers of WT and SHP-Tg mice after eight week HFD period.

No difference in liver immune cell subpopulations was observed between WT and SHP- Tg mice. Bar graphs show the average values \pm SEM of both groups. N: WT=5, SHP- Tg=5.



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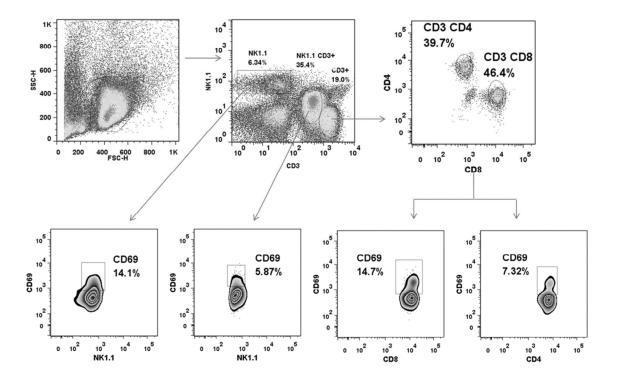
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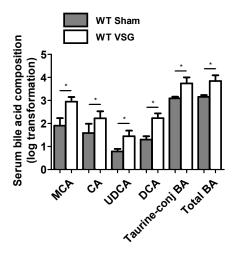
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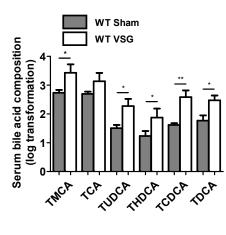
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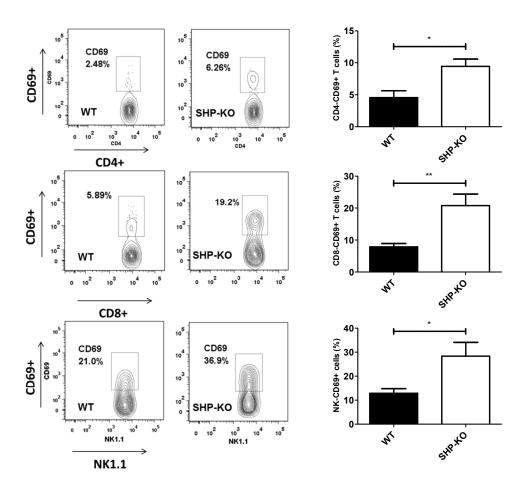
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