hypomethylation, $p=0.009$) despite modest but significant upregulation of expression (0.24, $p=8.20E-03$).

Conclusions Our findings could be the first to suggest that the up- and downregulation of *BAG3* and *EIF6* expression in MC could be due to hypo- and hypermethylation, however, their specific roles in MC tumorigenesis remains to be elucidated. Beyond mucin genes, upregulation of genes rarely associated with CRC was also observed, suggesting new insight into the aetiology of MC resistance to therapies and their roles as a potential target for MC treatment may be worth investigating.

IDDF2018-ABS-0243

TSG-6 RELEASED BY MESENCHYMAL STEM CELLS DERIVED FROM HUMAN INDUCED PLURIPOTENT STEM CELLS ALLEVIATE COLITIS THROUGH THE REGULATION OF CD44

Hongsheng Yang*, Rui Feng, Shenghong Zhang, Shu Xu, Yun Qiu, Ting Feng. *Department of Gastroenterology, The First Affiliated Hospital of Sun Yet-sen University, China*

10.1136/gutjnl-2018-IDDFabstracts.40

Background Mesenchymal stem cells (MSCs) have become a promising approach for inflammatory bowel disease (IBD). MSCs derived from human induced pluripotent stem cells (iPSC-MSCs) have increased expandability and prolonged stemness, but the therapeutic effects need to be further investigated. Tumour Necrosis Factor-stimulated Gene-6 (TSG6) released from MSCs have been shown to accelerate intestinal repair in IBD. And only CD44 acts as a TSG6 receptor. Therefore, we want to investigate the potential role and mechanism of the iPSC-MSCs on murine colitis via the regulation of TSG-6 and CD44.

Methods Murine colitis was induced by intrarectal TNBS administration. The expression of TSG6 in iPSC-MSCs was assayed with immunocytochemistry and Western blot. To study the role of TSG-6 secreted by iPSC-MSCs in alleviating murine colitis, iPSC-MSCs (2×10^6 cells/mouse) transfected with or without siRNA targeting TSG6 were injected intraperitoneally on the next day after TNBS administration. Body weight and disease activity index were recorded daily. Cell proliferation, apoptosis and the expression of CD44 were analysed by immunohistochemistry or qRT-PCR. In addition, the role of CD44 was studied by applying either control peptide or CD44 signalling inhibitor, PEP-1 to TNBS-induced murine colitis. Mice symptoms and mucosal healing were analysed as also.

Results iPSC-MSC produced and released TSG6. And the injection of iPS-MSC intraperitoneally attenuated murine colitis accompanied by increasing body weight and reducing the size of the ulcer. However, the therapeutic effects were largely decreased by knockdown of TSG6 in iPSC-MSC. In addition, iPS-MSC accelerated the ulcer healing by promoting the proliferation (Ki67) of colonic epithelial cells and increasing expression of CD44, but not in mice given iPSC-MCS with TSG-6 knockdown. And then we assessed the possible mechanism of TSG6 in promoting mucosal healing by CD44, and we found that the therapeutic effects of TSG-6 itself were similar to iPS-MSC. But the protecting effects of TSG-6 were diminished by inhibition of CD44 via injection of PEP-1 to TNBS induced colitis mice.

Conclusions iPSC-MSCs alleviate murine colitis by releasing TSG-6 and then activating CD44.

IDDF2018-ABS-0244

SCREENING OF CHROMOSOMAL ALTERATIONS, K-RAS MUTATIONS AND DNA METHYLATION STATUS IN APC PROMOTER OF FAMILIAL AND SPORADIC CASES WITH CARCINOMA OF THE AMPULLA OF VATER IN TAMIL NADU POPULATION

¹Balachandar Vellingiri*, ²Anand Lakshmanan, ¹Venkatesh Balasubramanian, ³Kaavya Jayaramayya, ³Mahalaxmi Iyer, ⁴Mohana Devi Subramaniam. ¹Human Molecular Genetics and Stem Cells Laboratory, Department of Human Genetics and Molecular Biology, Bharathiar University, Coimbatore, Tamil Nadu, India; ²Institute of Surgical Gastroenterology, Government Stanley Medical College Hospital, Chennai, India; ³Department of Zoology, Avinashilingam Institute for Home Science and Higher Education for Women – Avinashilingam University for Women, Coimbatore, Tamil Nadu, India; ⁴Department of Genetics and Molecular Biology, Vision Research Foundation, Sankara Netralaya, India

10.1136/gutjnl-2018-IDDFabstracts.41

Background Carcinoma of the ampulla of Vater is a rare malignant tumour arising from the precancerous lesions, which accounts for 6%–7% of periampullary tumours and 0.2% of gastrointestinal tract malignancies. The aim of the study was to identify the chromosomal alterations and K-ras mutations and to check the methylation status in Adenomatous polyposis coli (APC) promoter region in the familial and sporadic carcinomas of the ampulla of Vater.

Methods A total of 42 samples of carcinoma of the ampulla of Vater (included 31 familial and 11 sporadic cases) and equal numbers of controls were selected which were categorised based on their age (group I <50 years; group II >50 years). Techniques including GTG-banding and PCR-RFLP were used to identify the genetic alterations. DNA methylation in APC promoter region was analysed for methylation status at the CpG regions.

Results The result revealed a high frequency of chromosomes 1p- and 12p+involved in the poorly differentiated (PD) tumour grade and an increased prevalence of the K-ras mutations at the codon 12 associated with >2 cm tumour size in the familial carcinomas of the ampulla of Vater. The APC promoter region showed hypermethylation in the CpG islands of carcinoma patients compared to controls.

Conclusions The results concluded that the chromosomes 1p- and 12p+region might play a vital role for the development of a high grade tumour and the K-ras gene mutation is an early molecular event leading to an abnormal proliferation of the cells. Methylation profiling showed that APC gene has a key role in stabilising b-catenin pathway, in which hypermethylation in APC promoter region could lead to proteasome degradation of b-catenin suggesting that APC methylation may be the potential testing for Carcinoma of the ampulla of Vater diagnosis and provide a new viewpoint in the treatment.

IDDF2018-ABS-0249

SPONTANEOUS CHOLECYSTOCOLONIC FISTULA IN AN ELDERLY MALE: A RARE CAUSE OF MASSIVE LOWER GI BLEEDING

Millette Castro*. *University of the East Ramon Magsaysay Memorial Medical Center, Philippines*

10.1136/gutjnl-2018-IDDFabstracts.42

Background Biliary enteric fistulas are often incidental findings. When asymptomatic usually no treatment is necessary