RESEARCH HIGHLIGHTS

Nature Reviews Gastroenterology & Hepatology **11**, 454 (2014); published online 1 July 2014; doi:10.1038/nrgastro.2014.110; doi:10.1038/nrgastro.2014.111; doi:10.1038/nrgastro.2014.112; doi:10.1038/nrgastro.2014.113

IN BRIEF

HEPATITIS

Simeprevir inclusion in PEG-IFN plus ribavirin regimen for hepatitis C is safe and effective

The safety and efficacy of simeprevir inclusion into standard regimens of HCV therapy (PEG-IFN α and ribavirin) was assessed in two randomized controlled trials (QUEST-1, PEG-IFN α 2a; QUEST-2, PEG-IFN α 2a or 2b). Patients with genotype 1 HCV infection tolerated simeprevir well, with 80–81% reaching a sustained virologic response at 12 weeks compared with 50% of patients receiving standard therapy with placebo. The incidence and severity of adverse events was similar in the simeprevir and placebo groups.

Original articles Jacobson, I. M. et al. Simeprevir with pegylated interferon alfa 2a plus ribavirin in treatment-naive patients with chronic hepatitis C virus genotype 1 infection (QUEST-1): a phase 3, randomised, double-blind, placebo-controlled trial. *Lancet* doi:10.1016/S0140-6736(14)60494-3 | Manns, M. et al. Simprevir with pegylated interferon alfa 2a or 2b plus ribavirin in treatment-naive patients with chronic hepatitis C virus genotype 1 infection (QUEST-2): a randomised, double-blind, placebo-controlled phase 3 trial. *Lancet* doi:10.1016/S0140-6736(14)60538-9

LIVER

MicroRNAs in acute liver failure-a role in recovery?

Acute liver failure (ALF) is life-threatening, but some patients recover spontaneously. John *et al.* observed elevated serum levels of microRNAs (miR-122, miR-21 and miR-221) and reduced hepatic expression of microRNA target genes that impair liver regeneration (such as p21) in patients who spontaneously recover from ALF compared with patients who do not. These data suggest that these microRNAs might contribute to recovery of the liver.

Original article John, K. et al. MicroRNAs play a role for spontaneous recovery from acute liver failure. *Hepatology* doi:10.1002/hep.27250

INFECTION

FMT: a safe treatment for *Clostridium difficile* infection in immunocompromised patients

Faecal microbiota transplantation (FMT) is an effective treatment for *Clostridium difficile* infection, but concern exists over its safety in immunocompromised patients. A multicentre, retrospective analysis of 80 patients who received FMT found that no patient contracted an infection definitively related to treatment, and an overall cure rate of 89% was reported. The researchers conclude that FMT is a safe treatment option for this subgroup of patients.

Original article Kelly, C. R. et al. Fecal microbiota transplant for treatment of *Clostridium difficile* infection in immunocompromised patients. *Am. J. Gastroenterol.* doi:10.1038/ajg.2014.133

LIVER CANCER

New mutations involved in hepatoblastoma identified

Novel mutations, some in genes of the Wnt and ubiquitination pathways, have been discovered in hepatoblastoma tissue after whole-exome sequencing. Subsequent experiments identified one novel oncogene (*CAPRIN2*) and three tumour suppressors (*SPOP*, *OR5I1* and *CDC20B*) that might affect hepatoblastoma cell survival. The study confirms that activation of the Wnt pathway is involved in hepatoblastoma development and expands the number of known mutations.

Original article Jia, D. *et al.* Exome sequencing of hepatoblastoma reveals novel mutations and cancer genes in the Wnt pathway and ubiquitin ligase complex. *Hepatology* doi:10.1002/hep.27243