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IN BRIEF

HEPATITIS

HCV virions incorporate host regulators to avoid lysis

Patients with chronic HCV often have cross-reactive neutralizing agents but are unable to clear the virus, possibly because the HCV virions are able to avoid lysis. A study has shown that cultured HCV particles incorporate host CD59, a regulator of lysis by complement activation, into their cell membrane. These virions were able to resist antibody-dependent complement-mediated lysis. Addition of CD59 blockers to the culture reversed this phenomenon.

Original article Amet, T. *et al.* CD59 incorporation protects hepatitis C virus against complement-mediated destruction. *Hepatology* doi:10.1002/hep.24686

HEPATOCELLULAR CARCINOMA

Lymphocyte infiltration predicts survival

Few methods can accurately predict survival of patients with hepatocellular carcinoma. Using quantitative PCR and samples from 57 patients from Singapore and a validation cohort of 98 patients, a signature of 14 immune genes has been identified that can predict survival of these patients, particularly during the early stages of the disease. The signature includes the chemokine genes *CXCL10*, *CCL5* and *CCL2*. These chemokines drive lymphocyte infiltration of the tumors, which results in increased death of cancer cells.

Original article Chew, V. *et al.* Chemokine-driven lymphocyte infiltration: an early intratumoural event determining long-term survival in resectable hepatocelluar carcinoma. *Gut* doi:10.1136/gutjnl-2011-300509

GUT MICROBIOTA

Tolerance of commensal microbiota

The thymus prevents autoimmunity by eliminating or differentiating self-reactive T cells; however, it is unknown whether T cells can be altered to recognize antigens from commensal bacteria, which may prevent diseases such as IBD. Findings from a mouse study indicate that antigen-specific T_{REG} cells are generated in response to an individual's microbiota. This occurs after T cells have been altered in the thymus and could be a mechanism by which a host can tolerate commensal bacteria.

Original article Lathrop, S. K. *et al.* Peripheral education of the immune system by colonic commensal microbiota. *Nature* doi:10.1038/nature10434

HEPATITIS

New therapy for hepatitis C

A combination of the protease inhibitor BI 201335 (120 mg per day), the polymerase inhibitor BI 207127 (400 mg or 600 mg three times a day) and ribavirin (1,000–1,200 mg per day) for 4 weeks was safe and efficacious in 32 treatment-naive patients chronically infected with HCV genotype 1. In the group given 600 mg of BI 207127, the virological response was 100% by day 29, compared with 73% in those given 400 mg. The response to this combination was rapid and strong, and none of the patients experienced a severe adverse event.

Original article Zeuzem, S. *et al.* Efficacy of the protease inhibitor BI 201335, polymerase inhibitor BI 207127, and ribavirin in patients with chronic HCV infection. *Gastroenterology* doi:10.1053/j.gastro.2011.08.051