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IN BRIEF

LIVER

Insight gained into how regeneration and fibrosis in the liver are balanced in response to injury

The balance between receptors CXCR7 and CXCR4 in liver sinusoidal endothelial cells determines whether regeneration or fibrosis results after liver injury. In mouse models of liver injury, pro-regenerative CXCR7-dependent signalling was induced by acute injury, but CXCR7 was suppressed and pro-fibrotic CXCR4 upregulated by chronic injury. Ding *et al.* believe “These results provide a therapeutic roadmap to achieve hepatic regeneration without provoking fibrosis.”

Original article Ding, B.-S. *et al.* Divergent angiocrine signals from vascular niche balance liver regeneration and fibrosis. *Nature* doi:10.1038/nature12681

IMAGING

Reliable optical diagnosis of colonic lesions with endoscopic imaging techniques except autofluorescence imaging

In their meta-analysis, Wanders *et al.* determined the sensitivity, specificity and real-time negative predictive value of endoscopic imaging techniques for the diagnosis of non-neoplastic versus neoplastic colonic lesions. They conclude that narrow-band imaging, image-enhanced endoscopy, Fuji intelligent chromoendoscopy and confocal laser endomicroscopy can all be used to make a reliable diagnosis, but not autofluorescence imaging.

Original article Wanders, L. K. *et al.* Diagnostic performance of narrowed spectrum endoscopy, autofluorescence imaging, and confocal laser endomicroscopy for optical diagnosis of colonic polyps: a meta-analysis. *Lancet Oncol.* doi:10.1016/S1470-2045(13)70509-6

HEPATITIS

Sustained virologic response in treatment-experienced patients with HCV genotype 1 is increased by simeprevir

The results of a phase IIb trial suggest simeprevir improves sustained virologic response (SVR) in patients infected with HCV genotype 1 who have not responded, had a partial response or have relapsed after treatment with PEG-IFN and ribavirin. Patients receiving 100mg or 150mg simeprevir once daily for 12, 24 or 48 weeks plus PEG-IFN and ribavirin for 48 weeks had a significantly higher SVR 24 weeks after treatment ended than those who received placebo, PEG-IFN and ribavirin for 48 weeks (61–80% vs 23%).

Original article Zeuzem, S. *et al.* Simeprevir increases rate of sustained virologic response among treatment-experienced patients with HCV genotype-1 infection: a phase IIb trial. *Gastroenterology* doi:10.1053/j.gastro.2013.10.058

NEUROGASTROENTEROLOGY

Role for tumour suppressor retinoblastoma 1 in the enteric nervous system

Fu *et al.* bred transgenic mice to study the role of retinoblastoma 1 in neural-crest-derived melanocytes. “*TyrCre⁺;Rb1^{fl/fl}* mice exhibited no melanocyte defects but died unexpectedly early with intestinal obstruction, striking defects in the enteric nervous system (ENS), and abnormal intestinal motility,” say the authors. Mutant mice had twice as many enteric glia as control mice. Myenteric neuron number was normal, but DNA replication without cell division caused NO-producing myenteric neurons to develop very large nuclei.

Original article Fu, M. *et al.* Retinoblastoma protein prevents enteric nervous system defects and intestinal pseudo-obstruction. *J. Clin. Invest.* doi:10.1172/JCI67653