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## IN BRIEF

### NAFLD

#### Are there multiple fibrogenic pathways in NAFLD?

Fibrosis patterns typically differ between adults and children with NAFLD (centrilobular in adults, portal in children). Skoien *et al.* investigated how fibrosis pattern related to histological parameters in NAFLD. 68.4% of children had portal fibrosis (associated with ductular reaction), whereas 28.9% had 'adult' centrilobular fibrosis (associated with lobular inflammation and ballooning). Traditional markers of disease activity and hepatocellular injury do not seem to apply to paediatric NAFLD. The authors propose that this heterogeneity in fibrosis patterns indicates the presence of several fibrogenic mechanisms in NAFLD.

**Original article** Skoien, R. *et al.* Heterogeneity of fibrosis patterns in non-alcoholic fatty liver disease supports the presence of multiple fibrogenic pathways. *Liver Int.* doi:10.1111/liv.12100

### LIVER CANCER

#### Genomic analysis reveals two classes of intrahepatic cholangiocarcinoma

Genomic analysis of intrahepatic cholangiocarcinoma (ICC) samples (from 149 patients) has revealed two distinct ICC classes, each distinguishable by their molecular signature and outcomes. The 'proliferation' class (62% of ICCs) were characterized by, among others, activation of oncogenic signalling pathways as well as *KRAS* and *BRAF* mutations and, importantly, associated with poor outcome. The remaining 38% of ICCs were designated the 'inflammation' group, characterized by activation of inflammatory signalling.

**Original article** Sia, D. *et al.* Integrative molecular analysis of intrahepatic cholangiocarcinoma reveals 2 classes that have different outcomes. *Gastroenterology* doi:10.1038/j.gastro.2013.01.001

### IBD

#### Osteoporosis in IBD—men are also at risk

Osteoporosis is a common complication in IBD. In a retrospective study of patients with IBD (59 men, 115 women), 38.5% had impaired bone mineral density. Furthermore, men were diagnosed more often with osteopenia or osteoporosis than women (55.9% versus 29.6%), with a risk of bone disease comparable to postmenopausal women. Men with IBD are therefore also at high risk of osteoporosis, particularly when treated with corticosteroids, and might warrant careful monitoring.

**Original article** Walldorf, J. *et al.* Health care for osteoporosis in inflammatory bowel disease: unmet needs in care of male patients? *J. Crohns Colitis* doi:10.1016/j.crohns.2012.12.008

### LIVER

#### New central role for liver X receptors in hepatic steatosis

New research confirms a crucial role for liver X receptors in hepatic steatosis induced by essential fatty acids deficiency in animal models. Ducheix and co-workers found that essential fatty acids deficiency in mice did not promote hepatic steatosis in the absence of liver X receptors. Moreover, liver X receptors were required for the increased expression of genes involved in the lipogenic response to essential fatty acids deficiency.

**Original article** Ducheix, S. *et al.* Essential fatty acids deficiency promotes lipogenic gene expression and hepatic steatosis through liver X receptor. *J. Hepatol.* doi:10.1016/j.jhep.2013.01.006