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IN BRIEF

IBD

Sniffing out paediatric IBD

An electronic nose was used to study the patterns of faecal volatile organic compounds (VOCs) in children with IBD. Children with newly diagnosed IBD were assessed at baseline and upon achieving remission at 6-weeks follow-up. Analysis of these VOC patterns was able to discriminate patients with IBD from controls during active disease and remission, and was also able to discriminate Crohn's disease from ulcerative colitis. The researchers hope that this test could be useful for the noninvasive diagnosis and assessment of IBD, particularly in paediatric patients.

Original article de Meij, T. G. J. *et al.* Faecal gas analysis by electronic nose as novel, non-invasive method for assessment of active and quiescent paediatric inflammatory bowel disease: proof of principle study. *J. Crohn's Colitis* doi:10.1016/j.crohns.2014.09.004

COLORECTAL CANCER

New treatment combination for metastatic colorectal cancer

508 patients with untreated metastatic colorectal cancer were randomly assigned to receive either FOLFOXIRI (fluorouracil, leucovorin, oxaliplatin and irinotecan) plus bevacizumab or FOLFIRI (fluorouracil, leucovorin and irinotecan) and bevacizumab (control group). Patients who received FOLFOXIRI and bevacizumab had improved progression-free survival compared with control patients (12.1 versus 9.7 months, $P=0.003$), but also had an increased incidence of certain adverse events.

Original article Loupakis, F. *et al.* Initial therapy with FOLFOXIRI and bevacizumab for metastatic colorectal cancer. *N. Engl. J. Med.* **371**, 1609–1618 (2014)

INFECTION

Treating *Clostridium difficile* infection: a bitter pill to swallow

Faecal microbiota transplantation (FMT) has a role in treating recurrent *Clostridium difficile* infection; however, practical concerns regarding modes of administration have limited its widespread use. Youngster and colleagues investigated the safety and efficacy of frozen FMT capsules (from prescreened unrelated donors) for the treatment of recurrent *C. difficile* infection in 20 patients. No serious adverse events were noted, and 18 of 20 patients achieved resolution of diarrhoea. Large studies are needed to confirm these results.

Original article Youngster, I. *et al.* Oral, capsulized, frozen fecal microbiota transplantation for relapsing *Clostridium difficile* infection. *JAMA* doi:10.1001/jama.2014.13875

VIRAL HEPATITIS

A new model to study chronic HCV infection

A study published in *The Journal of Clinical Investigation* has demonstrated the potential of a novel mouse model of HCV infection. Hepatocyte-like cells (HLCs) differentiated from human embryonic stem cells and induced pluripotent stem cells were engrafted in the liver parenchyma of immune-deficient mice. These HLCs were then found to undergo further maturation and could support long-term infection of multiple HCV genotypes, thus providing a new way to study the biology of chronic HCV infection in patient-derived hepatocytes.

Original article Carpentier, A. *et al.* Engrafted human stem-cell derived hepatocytes establish an infectious HCV murine model. *J. Clin. Invest.* doi:10.1172/JCI75456