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## IN BRIEF

### ESOPHAGUS

#### Climate influences esophageal eosinophilia prevalence

In their cross-sectional study, Hurrel, Genta and Dellon examined esophageal biopsy samples that were taken from 2008 to 2010 as part of a large US pathology database. Using a temperate climate (as defined by the Köppen–Geiger climate class) as a reference, the researchers found that esophageal eosinophilia was more likely in a cold climate or an arid climate than in a tropical climate. They believe that geographical and climate patterns can be used to help identify candidate antigens for investigation.

**Original article** Hurrel, J. M. *et al.* Prevalence of esophageal eosinophilia varies by climate zone in the United States. *Am. J. Gastroenterol.* doi:10.1038/ajg.2012.6

### HEPATITIS

#### Proof of concept for antiviral activity of protease inhibitor TMC435 monotherapy against multiple HCV genotypes

Moreno *et al.* investigated the therapeutic potential of TMC435—an NS3/4a protease inhibitor—for patients infected with HCV genotypes 2–6 (TMC435 is already in phase III development for patients with HCV genotype 1 infection). 37 treatment-naïve patients were enrolled; treatment consisted of 200 mg TMC435 once daily for 7 days. Antiviral activity at day 8 was greatest for genotype 6, followed by genotypes 4, 2 and 5; however, no antiviral activity was evident against genotype 3.

**Original article** Moreno, C. *et al.* Antiviral activity of TMC435 monotherapy in patients infected with HCV genotypes 2 to 6: TMC435-C202, a phase IIa, open-label study. *J. Hepatol.* doi:10.1016/j.jhep.2011.12.033

### THERAPY

#### *Lactobacillus acidophilus* can attenuate the symptoms of chronic fatigue syndrome

*Lactobacillus acidophilus* may have a role in the treatment of chronic fatigue syndrome, particularly when incorporated into ‘floating’ alginate beads. In a rat model of chronic fatigue syndrome induced by physical fatigue (swimming), *L. acidophilus* (free or delivered in beads) had a significant and beneficial effect on immobility and postswim fatigue time; levels of oxidonitrosative stress and tumor necrosis factor were also attenuated and spleen and thymus size restored.

**Original article** Singh, P. K. *et al.* Role of *Lactobacillus acidophilus* loaded floating beads in chronic fatigue syndrome: behavioral and biochemical evidences. *Neurogastroenterol. Motil.* doi:10.1111/j.1365-2982.2011.01861.x

### GENETICS

#### Identification of three single nucleotide polymorphisms associated with infantile hypertrophic pyloric stenosis

Three single nucleotide polymorphisms (SNPs) associated with infantile hypertrophic pyloric stenosis have been identified by a genome-wide association study that included 1,001 surgically confirmed cases and 2,401 controls. Two of the SNPs are located in the vicinity of *MBNL1*, which encodes a factor important for splicing transitions that take place soon after birth. The other SNP is located downstream of *NKX2-5*, which has a role in the development of the embryonic gut and cardiac muscle tissue.

**Original article** Feenstra, B. *et al.* Common variants near *MBNL1* and *NKX2-5* are associated with infantile hypertrophic pyloric stenosis. *Nat. Genet.* doi:10.1038/ng.1067