was found between disease response and the presence of point mutations in *KRAS*, *BRAF* or *PIK3CA*. Consistent with previous studies, cetuximab inhibited proliferation of colorectal cancer cells with amplified *EGFR* copy number, whereas the same dose had no effect on cells with unamplified *EGFR*.

These findings suggest that tumor growth in patients responsive to cetuximab or panitumumab is driven mainly by the EGFR pathway, and that *EGFR* amplification in colorectal cancer cells is necessary for proliferation. Assessment of *EGFR* copy number using fluorescence *in situ* hybridization analysis could be used to select patients for treatment with anti-EGFR monoclonal antibodies.

Original article Moroni M *et al.* (2005) Gene copy number for epidermal growth factor receptor (EGFR) and clinical response to antiEGFR treatment in colorectal cancer: a cohort study. *Lancet Oncol* **6:** 279–286

Novel integrative diagnostic approach for Crohn's disease

According to Schreyer *et al*., MRI enteroclysis (MRE) in combination with magnetic resonance imaging colonography (MRC) might be a promising new diagnostic approach for whole bowel assessment in patients with Crohn's disease.

In this study, 30 patients with known Crohn's disease were examined by applying the dark-lumen technique in the small bowel together with a combination of MRC and MRE in the unprepared colon. T2-weighted and contrast-enhanced T1-weighted sequences were acquired and image analysis was performed. Distension of the bowel and colon subdivided into different segments was assessed and graded. Colonic inflammation assessment was compared with conventional colonoscopy in 29 of the 30 patients.

All 30 MRI examinations had sufficient diagnostic quality, with the best distension found in the terminal ileum and the worst in the jejunum. Using complete conventional colonoscopy, a sensitivity of 55.1% with a specificity of 98.2% was achieved for correct inflammation grading in all segments. By analyzing the subgroup of inflamed colonic segments independently, however, the MRC-based method detected inflammation with an increased sensitivity of 70.2% and a specificity of 99.2%.

The authors conclude that using the dark-lumen approach together with integrative MRE and MRC slightly improves sensitivity, which in turn could improve the diagnostic value of abdominal MRI evaluation in Crohn's disease. Although MRC cannot replace conventional colonoscopy, it is able to detect extensively inflamed bowel segments with high specificity as a follow-up examination.

Original article Schreyer AG *et al.* (2005) Dark lumen magnetic resonance enteroclysis in combination with MRI colonography for whole bowel assessment in patients with Crohn's disease: first clinical experience. *Inflamm Bowel Dis* **11:** 388–394

Are human papillomaviruses associated with colorectal cancer?

A recent retrospective study from Bodaghi *et al*., published in *Clinical Cancer Research*, responds to the debate on whether human papillomaviruses (HPVs) have a role in the etiology of colorectal cancer.

Paired samples from malignant tissue and surrounding noncancerous areas were obtained from 55 patients with various colorectal tumors. Single samples were taken from the descending colon or rectosigmoid region of 10 cancer-free control subjects. HPV DNA was detected by polymerase chain reaction.

Of the patients with colorectal malignancies, 51% tested positive for HPV DNA and three types of HPV were identified, namely HPV16, HPV18, and HPV45. These results differed significantly from the control samples, where HPV DNA was undetected ($P = 0.0034$). In HPV+ patients, there was a tendency for viral DNA to be found in tumor tissues more often than in non-malignant tissues, although the difference was not significant ($P = 0.14$). Analysis of HPV+ samples containing HPV16 DNA (82% of all HPV+ samples) revealed that 68% were negative for the intact HPV16 E2 gene (*16E2*), indicating that the viral DNA had been integrated into the host cell, causing the gene to be disrupted. Notably, intact *16E2* genes were less prevalent in malignant samples than in non-tumor tissues (22% and 39%, respectively).

In conclusion, patients with colorectal cancer are often found to have HPV infection, particularly