



UEG ANNUAL CONGRESS 2016

AUSTRIA CENTER VIENNA,
VIENNA, AUSTRIA
15TH-19TH OCTOBER 2016

Welcome to the
European Medical Journal review of the 24th
United European Gastroenterology Week

This occasion marked the fourth time the beautiful city of Vienna has played host to UEG Week, facilitating the gathering of leading scientists, practitioners, and stakeholders in digestive health. The meeting was a resounding success, with 13,284 delegates from across 114 countries worldwide in attendance, 2,132 abstracts presented, 2,233 exhibitors, and 587 invited lectures. A key feature of this globally renowned event in which >1,300 professionals participated was UEG Week Live, a platform for clinical discussion of on-topic scenarios and novel treatment options. In addition, to ensure the continuation of the information relay, recordings of all core lectures were made available online and continue to be accessible even after the conclusion of the event.

Speaking at the opening ceremony, the President of the UEG, Prof Michael Manns, commented on the growth of this annual gastroenterology event: "The stronghold of UEG certainly is the UEG Week. We have 12,700 registered people before the start of the meeting; we really expect to reach the limit of 14,000 once we close this meeting. The first set of talks is finished already and it has a record attendance of 2,418. We are becoming a global meeting. On the right side, we see that two-thirds of the delegates come from European countries, but nevertheless we are growing to become an international meeting, with 16% from Asia, 5.5% from North America, 5% from South America, and close to 5% from Africa."

As ever, the scientific programme was exemplary, detailing cutting-edge advances in clinical management, paramount research in gastrointestinal (GI) and liver disease, and hosting a variety of symposia and fora, which covered topics at the forefront of gastroenterology and hepatology research. Previously popular symposia made a welcome return, such as the National Societies Symposia, which focussed on the optimisation of clinical trials, oesophageal cancer, and hepatitis C therapy, outlining differences and similarities across European nations in clinical practice, epidemiology, and guidelines. This year, the Posters in the Spotlight and Poster Champ sessions were complemented with the addition of 'Exemplary clinical cases'. The event also combined translational sessions to highlight important topics and research directions likely to improve clinical practice

management for gastroenterologists, particularly insightful for up-and-coming medical professionals.

The UEG Week Hotspot was not to be missed, featuring the most heated debates, disputed sessions, breaking news, and interactive abstract discussions. A joint UEG-European Medicines Agency (EMA) session on 'Drug development for digestive diseases: From clinical needs to regulatory perspectives' and 'A survivors guide for a happy and successful career in Gastroenterology' proved to be particular highlights. The Hotspot also saw the presentation and discussion of up-to-date results from topical large-scale clinical trials, ensuring attendees had the opportunity to update their knowledge regarding applicable therapeutic options within the clinic.

In recognition of the outstanding scientific work that had taken place throughout the year, several awards and prizes were bestowed during the Opening Awards Ceremony of UEG Week. This year, the €100,000 UEG Research Prize was presented to Prof Ernst J. Kuipers, Rotterdam, Netherlands, for his magnificent project on 'Hidden in plain sight; the opportunities for targeted surveillance and intervention for early gastric neoplasia'. The money from the prize will bolster Prof Kuiper and team's research into the prevention and detection of early GI cancer, contributing particularly to his keen interest in risk factors and evolution of premalignant gastric lesions to invasive cancer.

Prof Günter J. Krejs, Graz, Austria, was presented with the UEG Lifetime Achievement Award, in honour of his pioneering and inventive work throughout his career in gastroenterology, spanning a total of 44 years, authoring an extensive amount of primary papers, including the first to describe the paraneoplastic somatostatinoma syndrome.

In addition, the prize for the first-named author of the leading original scientific research published within the UEG Journal during the past year was awarded to Dr Tara Raftery, Dublin, Ireland, for the primary paper entitled: 'Effects of vitamin D supplementation on intestinal permeability, cathelicidin and disease markers in Crohn's disease: Results from a randomised double-blind placebo-controlled study'. This was selected by a professional panel of experts, led by Chief Editor Prof Jan Tack.

In this issue of *EMJ Gastroenterology*, we cover a selection of paramount research topics presented at this year's UEG Week, enabling you to either reacquaint yourself with personal highlights, catch up on information you may have missed, or experience the entire congress from your desktop. We trust that this will be of use to you in your practice going forward and that you will find the content both applicable to day-to-day cases and a stimulant for further research into your personal areas of interest. Next year's UEG Week will be taking place in sunny Barcelona, Spain; our congress team will be in attendance, and hope to see you there too!



Congress Highlights



Updates to Guidelines Welcomed by Clinicians

UPDATES to guidelines for the diagnosis and treatment of functional gastrointestinal (GI) disorders have been welcomed by clinicians as reported in a UEG press release dated 18th October 2016. The new publication from the Rome Foundation, named the Rome IV classification, is a reworking of the previous Rome III criteria taking into account 10 years' worth of expert consensus and fresh evidence.

Dr Douglas A. Drossman, President of the Rome Foundation, explained: "The Rome III criteria were published in 2006 and, in the last 10 years, we have seen unprecedented progress in our understanding of functional GI disorders and now have better treatments available for many of them."



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The changes included: the redefinition of functional GI disorders such as 'disorders of the gut-brain interaction'; the addition of new diagnoses; amendments to the thresholds of diagnostic criteria to allow greater accuracy; revisions to Sphincter of Oddi disorder criteria; and new definitions of irritable bowel syndrome and its subtypes. The guidelines have been published as a two-volume textbook and supplementary clinically-orientated books to allow greater access to the right information across a range of clinical specialties for the respective clinicians.

In addition to this, new software has been developed to allow the Rome Foundation to offer a novel interactive online platform, combining the new Rome IV diagnostic algorithms with Multidimensional Clinical Profile (MDCP) guidelines. On the platform itself, clinicians can input patient data to

access different pathways, ultimately leading to treatment recommendations and thus allowing treatment strategies for patients to result in optimum clinical outcomes. It is hoped that by making such a wealth of information this accessible, the challenges of working with patients presenting with any number of symptoms will be better overcome.

Commenting on the new guidelines, Dr Drossman stated: "These changes reflect our growing understanding of many different aspects of functional GI disorders and they should help support future research and enhance clinical practice." He added: "We now want to help clinicians in Europe and around the world to understand the new criteria, integrate them into their own diagnostic work-ups, and optimise their patient management."

Faecal Bacterial Profiling: A Breakthrough for Irritable Bowel Syndrome Patients

A DEMANDING diet to treat irritable bowel syndrome (IBS) has been called into question at this year's UEG congress. The low-FODMAP diet, currently an established treatment, requires the restriction of certain food groups including wheat, barley, onion, fructose-free foods (including many fruits), and artificially sweetened products. Although this diet can be highly effective, many individuals do not benefit from the strict regulation of food groups. Clinicians are currently unable to identify whether a patient will benefit from the treatment.



13,284 delegates



In a UEG press release dated 18th October 2016, Dr Sean Bennet, Department of Internal Medicine, Institute of Medicine, University of Gothenburg, Gothenburg, Sweden, explained: "A low-FODMAP diet has been shown in a recent clinical trial to significantly reduce the symptoms of IBS in around half the people who tried it. Unfortunately, this is a very demanding diet that requires the exclusion of entire food groups, so we have been looking at ways to predict who will gain the greatest benefit from trying it."

Considering their findings, the researchers believe that the cause of the differences in IBS patient treatment may be regarding the altering of gut microbiota composition once the diet has begun. The study involved analyses of 61 patients with moderately-severe or severe IBS following either a traditional or a low-FODMAP diet. The trial lasted 4 weeks, and faecal samples were collected prior to and following the dietary change. Bacterial profiling of the samples revealed that patients' bacterial composition changed, as well as differing faecal bacterial profiles between those who responded positively and those who did not. Patients who had more gut bacterial abnormalities at the beginning of the trial were found to respond poorly to the diet.

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114 countries worldwide in attendance

Dr Bennet commented: "This raises the possibility that faecal bacterial profiling could be undertaken before dietary interventions are considered." He added: "Being able to predict if a patient is unlikely to respond to a low-FODMAP diet means that other therapies could be discussed earlier, and these patients could be spared a demanding diet that might have no effect on, or even worsen, their symptoms."

Hyperspectral Imaging: The Future for Cancerous Tissue Detection?

HYPERSPSPECTRAL imaging instruments currently utilised for gastrointestinal (GI) tumour identification procedures are bulky, expensive, and complicated, making them impractical for widespread clinical use. Now, Dr Sarah Bohndiek, Cancer Research UK Cambridge Institute, University of Cambridge, Cambridge, UK, and colleagues are in the process of refining the technique, designed to help differentiate between healthy and cancerous tissue, as described in a UEG press release dated 17th October 2016.



The time-frame in which GI tumour detection occurs can have a huge impact on patient survival. At present, standard endoscopy systems are typically used, which rely on light detectors that mimic the human range of vision. To exploit the electromagnetic spectrum further, researchers have studied the manipulation of signal excitation within the visible and near infrared. The novel system developed by Dr Bohndiek and her group features a multitude of additional camera filters in addition to a standard endoscopy system, enabling the colour channel spectrum used for cancer detection to be increased to >50. This will enable clinicians to identify subtle differences in tissue composition and lesion scope with high specificity and sensitivity. This new system has already been successfully used to image a variety of dyes across various realistic tissue backgrounds. Dr Bohndiek explained: "Since cell changes associated with the development of cancer lead to colour changes in the tissues, we believe that hyperspectral imaging could help us to improve the specificity of lesion identification because we can use these colours to identify abnormal tissues."

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The application of this innovative technique is not limited to the detection of GI tumours, and will potentially benefit the diagnosis of a plethora of GI conditions and alternative cancers via non-invasive imaging. Dr Bohndiek elucidated: "Hyperspectral imaging is a powerful tool that can reveal the chemical composition of human tissues and together with different fluorescent dyes, can identify a range of biological processes. The technique has many potential applications within cancer diagnostics, with exciting developments already reported in the detection of Barrett's oesophagus, which is a precancerous condition in some people."

2,233 exhibitors

The Berliner TransitionsProgramm: Care for Young Adults with Irritable Bowel Disease

URGENT action is required for the improvement of paediatric-to-adult transitions in clinical care, stated world leading gastroenterology experts in a UEG 2016 press release dated 19th October.

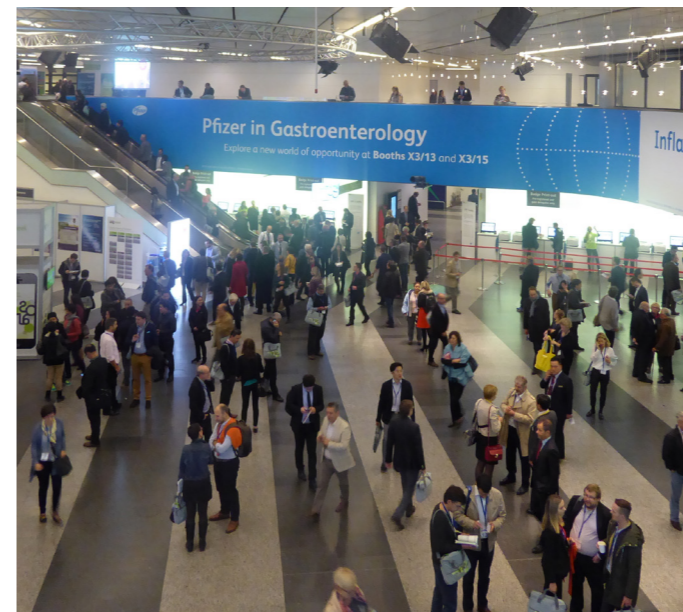
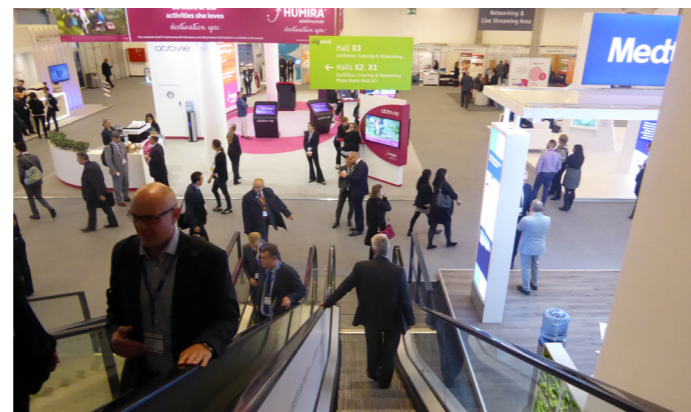
To address this modern concern, Prof Walter Burger, Dr Arpad Von Moers, and colleagues, DRK Kliniken Berlin, Berlin, Germany, have developed a first-of-its-kind framework, termed the Berliner TransitionsProgramm (BTP). This innovative concept hopes to significantly improve the patient care of adolescents with long-term, previously-diagnosed juvenile health conditions, including diabetes, arthritis, epilepsy, kidney disease, and arthritis, by monitoring their transition between paediatric and adult care teams for 2 years. For the purpose of this UEG presentation, the focus was on its potential impact on the treatment of irritable bowel disease (IBD).

“ Transitioning programmes are initiated in the paediatric setting and involve a gradual process aimed at building the young person’s understanding of their conditions to help prepare them and their families for a move into adult care. ”

The incidence of IBD presentation in children and young adults is on the rise; at present, one in four cases are diagnosed within childhood, however 18% of those <18 years old have experienced a significant delay in diagnoses of ≤5 years. Although IBD patients of all ages are at an increased risk of developing colorectal cancer within their lifetime (6-fold

increase), diagnoses in childhood are often associated with a high severity of symptoms, a negative impact on education (reported in >50% of sufferers) and social behaviours, and detrimental effects on mental health.

It is therefore hoped that assignment of each patient to an experienced case manager and close collaboration between both paediatricians and adult care-based physicians will allow the smooth transition between departments and changes of therapy. Prof Britta Siegmund, BTP Task Force member, Universitätsmedizin Berlin, Berlin, Germany, stated: “Following the success of results in other disease areas, IBD was incorporated into the programme 2 years ago. Transitioning programmes are initiated in the paediatric setting and involve a gradual process aimed at building the young person’s understanding of their conditions to help prepare them and their families for a move into adult care. So far, our experience demonstrates that the young people who have taken part have arrived into adult care very positively.” She explained that participating physicians are all accepted based on their background and motivation to invest their time in contributing to improvements in adolescent care, with the task force serving as a role model for implementation throughout Europe.



Protein in Wheat Triggers Inflammation of Chronic Health Conditions

INFLAMMATION of chronic health conditions, including multiple sclerosis, rheumatoid arthritis, and asthma are triggered by a protein in wheat, according to the results of a study presented in a UEG press release on 17th October 2016. It also plays a role in the development of non-coeliac gluten sensitivity as well as worsening the symptoms of irritable bowel syndrome, lupus, and non-alcoholic fatty liver disease.

Studies have typically considered gluten and its impact on digestive health, but this new study has focussed attention on another family of proteins present in wheat: amylase-trypsin inhibitors (ATIs). Although they comprise ≤4% of wheat proteins, this study found that consuming ATIs can result in the development of inflammation in tissues beyond the gut, such as the kidneys, spleen,

and lymph nodes. The study’s lead researcher, Prof Detlef Schuppan, Institute of Translational Immunology, University Medical Center of the Johannes Gutenberg University, Mainz, Germany, elaborated: “As well as contributing to the development of bowel-related inflammatory conditions, we believe that ATIs can promote inflammation of other immune-related chronic conditions outside of the bowel. The type of gut inflammation seen in non-coeliac gluten sensitivity differs from that caused by coeliac disease, and we do not believe that this is triggered by gluten proteins. Instead, we demonstrated that ATIs from wheat, that are also contaminating commercial gluten, activate specific types of immune cells in the gut and other tissues, thereby potentially worsening the symptoms of pre-existing inflammatory illnesses.”

This research into ATIs offers fresh insight into the causes of non-coeliac gluten sensitivity. Although extraintestinal symptoms, including headaches, joint pain, and eczema typically improve swiftly on adoption of a gluten-free diet, it is not believed that gluten causes the condition. ATIs offer greater explanatory power for the condition, and Prof Schuppan added: “Rather than non-coeliac gluten sensitivity which implies that gluten solitary causes the inflammation, a more precise name for the disease should be considered.”

Building on this research, further clinical studies have now been initiated to study the role ATIs play in chronic health conditions in greater detail. It is hoped that further evidence will allow the recommendation of an ATI-free diet to facilitate the treatment of a range of potentially serious immunological disorders.

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2,132 abstracts presented