**Overcoming Challenges in IBD Management**

Authors: Panes J, Ghosh S, Gomollon F, Louis E  
Publisher: Karger Publishers, 2013  
ISBN Number: 978-3-318-02468-5  
Price: $56.00

The book “Overcoming Challenges in IBD Management” by Panes, Ghosh, Gomollon, and Louis (editors) from Karger Press is a collection of up-to-date clinical and basic science topics in inflammatory bowel disease (IBD) that were presented at the 187th Falk Symposium in Barcelona, Spain. This book is a reprint of the articles found in the journal, *Digestive Diseases* in 2013 (volume 31, issue 2). This 263-page book is divided into six major topics: understanding mechanisms of disease, advanced techniques for diagnosis of IBD, optimal use of available drugs in IBD, best surgical approaches for IBD, managing IBD outside the gut, and cancer in IBD. This book provides a concise review of important topics with regards to the clinical evaluation of IBD patients, role of endoscopic and non-invasive imaging modalities to assess extent of disease, surgical strategies and considerations specific to IBD patients, management of extraintestinal manifestations, and special considerations in the selection of medical therapies for IBD patients. The book nicely describes the role and timing of computed tomography/magnetic resonance (CT/MR) enterography and deep enteroscopy to assess extent of small bowel disease as well as the role of these newer modalities in assessing response to medical therapy. The book also addresses important considerations in optimizing medical therapies for IBD patients, including the use of immunomodulators and anti-tumor necrosis factors (anti-TNF) as monotherapies versus combination therapies and timing for escalation or de-escalation of those medical therapies. A major strength of this book is an excellent overview of management of extraintestinal manifestations of IBD patients including ocular complications, liver disease, and osteoarticular manifestations. Post-operative management of IBD patients was also thoroughly addressed in this book, summarizing early endoscopic and microscopic recurrence of disease. It also discusses strategies to identify higher risk patients for post-operative recurrence who may need early medical interventions, such as addition of a biologics or immunomodulators.

However, a few limitations are noted as well. This book does not address the role of therapeutic drug monitoring in the management of IBD. Increasing research is being published on using therapeutic drug monitoring, such as drug levels of biologics and immunomodulators, to titrate drug therapies for patients with IBD rather than putting patients on fixed doses of drugs or fixed dosing intervals. Additionally, the book does not fully address shifts in treatment goals which include mucosal healing and bowel wall intestinal remodeling with the use of biologics therapy. The book also does not address the role of serologies and genetics of IBD in predicting long-term outcomes of IBD patients. Furthermore, the book does not address emerging and more complicated therapies from those patients who are non-responders to anti-TNF therapy.

Overall, this book provides a nice summary of important topics in the management of IBD patients. We would highly recommend of this book to all general gastroenterologists and surgeons caring for IBD patients. However, if you are an IBD specialist at a tertiary-care center, this book may be less helpful due to its missing of several topics on the care of the more difficult IBD patients.

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**Probiotic Bacteria and Their Effect on Human Health and Well-Being**

Editors: A. Guarino, E.M.M. Quigley, W.A. Walker  
Publisher: Karger Publishers, 2013  
ISBN Number: 978-3-318-02265-0  
Price: $219.45

As the study of host-microbiome interaction has in recent years become one of the hottest fields in life science, the resulting advances in methodology and research have generated an explosion of knowledge on the topic, which in turn has opened fertile new areas for inquiry. Appropriately, this review of “Probiotic Bacteria and their Effect on Human Health and Well-Being” is not a comprehensive textbook, but is rather...

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a concise, high-level snapshot of the progress to date in both (1) mechanistic understanding and (2) practical use of probiotics. Though far from exhaustive, this text summarizes key studies and current directions in the field, and then allows the authors to speculate upon new future possibilities. In this sense, the volume functions best not as a diagnostic or management handbook, but as a signpost directing the reader toward further resources and new avenues of inquiry.

A variety of topics in probiotic research are covered by 54 co-authors in 21 chapters, although several key themes emerge repeatedly. One is the observation that gut bacteria are 10 times more numerous than the body’s own cells, and the collective microbial genome possibly 100x greater than ours, underlying the great potential influence of the microbiome on health. Another is that advances in non-culture (eg, metagenomic) methods for identifying bacteria (or their genes) have revolutionized the field, showing that each individual’s enterotype is distinctly personal and influenced by heredity, diet, and age. A third common theme is that since intestinal dysbiosis is seen in a range of diseases (including IBD, allergy, infection, and metabolic syndrome), probiotics have been used for all of these clinical settings, although evidence for efficacy has been mixed, and further studies are needed.

However, arguably the most central concept highlighted in this book—and of special relevance to pediatricians and developmental biologists—is that early colonization by gut microflora may have lifelong and far-reaching effects, even outside of the intestinal tract (respiratory, metabolic syndrome, allergy). This idea links many of the other chapters, including those focusing on gut immunity, obesity and metabolic syndrome, and the brain-gut-microbiome axis (including irritable bowel syndrome, other functional GI disorders, and even anxiety and depression). One of the most tantalizing studies linking microbiota to metabolism showed that prenatal *Lactobacillus GG* (LGG) given to mothers not only affected their own weight, but even that of their children up to age 4. This is an example of how understanding microbiota could lead to simple, non-invasive avenues for early health intervention.

Naturally, there is room for improvement as well. On one hand, “mechanisms are speculative” is an oft-repeated conclusion, reflecting the current state of the art. On the other hand, a full chapter is dedicated to basic research on TLR and NLR signaling, which while important, avoids discussion of other possible mechanisms for host-bacteria interaction. The discussion of probiotics in inflammatory bowel disease focuses on children, excluding adults—although adult studies may be fewer and the overall disease burden is higher. The section on probiotics in necrotizing enterocolitis, a topic of some controversy, appears brief and overly simplified. Finally, among the 54 authors only Europe, Israel, and the US are represented. One wonders whether the discussion could have been broadened by inclusion of experience from Latin America or Asia.

Overall, however, this book fulfills its stated goal of providing “unbiased, up-to-date information on recent developments in biology, pharmacology, and medicine” in the field of probiotics in health. Comprehensive knowledge would be hard to compile for such a rapidly developing field, but this text is useful as an overview of current affairs, pointing the way to a future in which microbiota play an increasingly integrated role in many areas of health (and disease) management. Could “microbiomic” analysis predict disease or determine individualized treatment? Will microbial intervention in infancy prevent later disease throughout life? And what are the unrecognized risks? Indeed, these reports make clear that lowly ‘bugs’ are at once neither as passive—nor as pathogenic—as once was thought, and the best path forward requires that they, and we, all get along together.

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BOOK REVIEWS

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**Falk Symposium 186:**
**Challenges of Liver Cirrhosis and Tumors: Prevent It, Treat It, Manage Consequences**

Publisher: Karger Publishers, 2012  
Pages: 180  
ISBN: 978-3-318-02384-8  
Price: $96.00

For over 40 years, the The Falk Foundation e.V. has supported educational symposia and workshops to promote health and review the most current understanding of disease states. The goal of the 186th Falk Symposium in October 2012 in Mainz, Germany was to address cirrhosis and its consequences, with the particular focus of this meeting concentrating on hepatocellular carcinoma (HCC). A broad range of hepatology topics were presented including varied subjects of liver transplantation, liver tumors including hepatocellular carcinoma and cholangiocarcinoma, cholestatic liver disease, and hepatitis B in its relation to HCC. Karger has collected the written summaries of the lectures which are compiled into this single publication.

The Falk Symposium 186 (Karger, 2013) is a collection of 11 concise review chapters presented in a soft cover binding. The articles are well-written by recognized and reputable authors with concise presentation of clinically relevant issues in hepatology at this time. Most chapters are 5 to 10 pages in length and are easily read. Both gastroenterologists and hepatologists would benefit from this collection given that many articles provide a broad overview of the topic with subsequent detailed breakdown appealing to the subspecialist.

As clinicians are encountering hepatic malignancies at increasing rates, six of the 11 chapters are focused on liver malignancies. Included are 2 chapters devoted to the challenges of cholangiocarcinoma with a review of the Mayo group’s experience with liver transplantation for this devastating disease. Particularly helpful for the clinician is the first chapter by A. Forner and J. Bruix reviewing basic clinical algorithms and prognostic assessment tools for hepatocellular carcinoma. The book also has an excellent review of the status of systemic therapies for hepatocellular carcinoma by Professor Wöhrs. The liver malignancy section concludes with an international perspective on the approach to these diseases in Asia and a detailed review of the role of hepatitis B in HCC development.

The remainder of the chapters covers varied topics including autoimmune hepatitis, a European perspective on liver transplantation and a concise update on familial amyloid polynoeuropathy. The autoimmune hepatitis chapter by Professor Strassburg is another clinician-friendly chapter that is particularly well done. As an added bonus, the first portion of the book includes review chapters from the Falk Symposium 185 ‘Interfaces and Controversies in Gastroenterology’ covering broad topics such inflammatory bowel disease, esophageal disease, and pancreatitis.

The Falk Symposium 186 Review is an excellent choice for a collection of concise but meaningful reviews for a varied number of gastroenterology and hepatology topics.

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Intraesophageal Pressure in Relation to Pediatric Cough

Multichannel intraluminal impedance with pH monitoring (MII-pH) has become a commonly used test for detection of gastroesophageal reflux (GER) in children. One indication MII-pH is for GER-associated cough, although there is a question of reliability of patients or parents recording symptoms in relation to GER. Recently, the addition of intraesophageal pressure recording (IEPR) to MII-pH has been proposed as a more accurate method of correlating cough with GER, and this prospective study evaluated the sensitivity of IEPR with cough correlation in pediatric patients with GER.

The study occurred at a single institution and was comprised of 20 pediatric patients with a mean age of 103±41 months. A four-channel IEPR monitor was sutured to a MII-pH catheter. All studies were analyzed blindly by one study author with significant pediatric motility experience. GER was present on IEPR as high-pressure, simultaneous, intraesophageal spikes. The symptom index (SI) described the number of symptoms associated with GER compared to the total number of symptoms recorded, with symptoms considered positive if the correlation percentage was greater than 50%. It was assumed that there would be a difference of 10 coughs between patient / parent-recorded coughs, and IEPR-detected coughs would have greater than 90% power to reject the null hypothesis. All relevant symptoms were recorded by patients or their parents. The average study duration was 21.5±1.5 hours.

In total, 1349 cough episodes were recorded by IEPR or by a parent. Interestingly, IEPR detected 94% of GER-related cough while parental report detected only 48% of GER-related cough. In general, IEPR-detected cough was detected 11±16 seconds before parent-recorded cough. The sensitivity of parent report for GER-related cough was low at 46%. Three patients had a positive SI by parent report but were shown to have no SI by IEPR which changed the diagnosis of GER-related cough in these patients. As IEPR was more accurate in precise time determination, the SI was 0 in those patients with GER preceding cough when episodes of GER after cough were removed from analysis.

This study suggests that patient/parental recording of GER in relation to cough is highly inaccurate and raises the issue of the reliability of MII-pH monitoring for symptoms, such as cough, in children. Perhaps MII-pH combined with esophageal pressure monitoring techniques, such as IEPR, is necessary for evaluating GER symptoms in children. This is a small but intriguing study that will require larger sample sizes with different patient ages to validate.


Probiotics, NEC, and Sepsis

It is known that premature infants are at risk of late-onset sepsis (defined as sepsis occurring more than 48 hours after birth) due to gastrointestinal pathogenic bacteria entering the blood stream. Complications from such pathogenic bacteria include sepsis and necrotizing enterocolitis (NEC). Probiotics may be a potential preventative therapy for both sepsis and NEC in premature infants. The authors of this study evaluated the ability of probiotics to reduce the incidence of late-onset sepsis in a prospective, multi-centered, double-blinded, placebo-controlled trial.

Infants were recruited into the study if they were less than 32 weeks gestation at birth and weighed less than 1500 grams. A probiotic regimen of Bifidobacterium infantis, Streptococcus thermophilus, and Bifidobacterium lactis or maltodextrin placebo was given with feeds for infants receiving at least one milliliter of milk every 4 hours. “Definite sepsis” was defined as an isolated pathogen from blood or other fluid while “clinical sepsis” was defined as a negative blood culture with an elevated C-reactive protein or elevated immature-to-total neutrophil ratio in the setting of intravenous antibiotics use. In total, 548 infants were enrolled in the probiotic group while 551 infants were in the placebo group.

No significant difference was seen between treatment groups with at least one episode of definite late-onset sepsis although when using subgroup analysis, the incidence of definite sepsis was significantly reduced in those infants who were receiving probiotics and were greater or equal to 28 weeks gestation. This effect was not seen in infants less than 28 weeks gestation. No significant difference in definite late-onset sepsis (continued on page 52)
was noted when conventional pathogens or coagulase-negative *Staphylococcus* were isolated. Additionally, no significant difference in late-onset sepsis was seen between treatment groups in those infants with one or more clinical late-onset sepsis events. Probiotics, on the other hand, significantly reduced the risk of NEC at Bell stage II or greater (as in findings of intestinal dilation, pneumatosiis intestinalis, ileus, ascites, or pneumoperitoneum).

This study suggests that probiotics do not reduce the risk of late-onset sepsis in extremely preterm infants. The probiotics used in this study reduced the risk of NEC, but the number of infants with NEC was small compared to the overall study group. It remains to be determined if certain subgroups of preterm infants would benefit from probiotic use.


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Clinical Course of Primary Sclerosing Cholangitis
To obtain population-based prevalence and incidence figures, insight and disease course with regards to survival, liver transplantation (LT) and occurrence of malignancies, as well as risk factors thereof, four independent hospital databases were searched in 44 hospitals in a large geographically-defined area of the Netherlands, comprising 50% of the population.

In addition, all PSC patients in three Dutch liver transplant centers and all IBD patients in the adherence area of a large district hospital were identified. All medical records were reviewed on-site, verifying diagnoses.

A total of 590 PSC patients were identified, resulting in an incidence of 0.5 and a point prevalence of 6 per 100,000. Median followup was 96 months.

Estimated median survival from diagnosis until LT or PSC-related death in the entire cohort was 21.3 years, as opposed to 13.2 years in the combined transplant centers cohort (N = 422).

Colorectal carcinoma (CRC) risk was 10-fold increased as compared to ulcerative colitis controls and developed at a much younger age (39 years compared to 59 years/IBD-controls).

Colonoscopic surveillance was associated with significantly better outcome. It was concluded that CRC can develop at an early age in these patients, warranting surveillance from the time of PSC diagnosis.


Adalimumab and Risk of Hospitalization in Treatment of UC
To assess whether adalimumab in addition to standard UC therapy, reduced the risk for hospitalization (from all causes from complications of UC, or of the drugs used to treat it), and colectomy in patients with moderate to severe UC compared with placebo, data was combined from patients who received induction therapy or placebo in two trials (ULTRA-1 and ULTRA-2), N = 963.

The risks of hospitalization and colectomy were compared between groups using unadjusted rates during the 8-week induction period and patient/year adjusted rates during 52 weeks. Statistical differences between the groups were determined. Numbers of hospitalization were compared using Poisson regression with time offset.

Significant reductions in UC-related and UC or drug-related hospitalizations by 40%, 50%, and 47%, respectively were observed within the first 8 weeks of adalimumab therapy compared with placebo. Significant lower incidence rates for all cause (0.18 vs. 0.26), UC-related (0.12 vs. 0.22), and UC or drug-related (0.14 vs. 0.24) hospitalizations were observed during 52 weeks of adalimumab therapy compared with placebo.

Rates of colectomy did not differ significantly between patients given adalimumab versus placebo.

It was concluded in patients with moderate to severe UC, that the addition of adalimumab to standard of care treatment reduced the number of hospitalizations for any cause, as well as for UC-related and UC or drug-related complications, compared with placebo.


Prophylaxis for Gastrointestinal Bleeding in Hepatocellular Carcinoma
To compare outcomes after variceal bleeding (VB), with and without hepatocellular carcinoma (HCC), all patients with HCC and esophageal VB admitted between 2007 and 2010 were evaluated. Followup was continued until death, transplantation, or June 2011. For each patient with HCC, a patient without HCC matched by age and Child-Pugh class was selected. A total of 292 patients were included, 146 with HCC and 146 patients without HCC. No differences were observed regarding previous use of prophylaxis, clinical presentation, endoscopic findings and initial endoscopic treatment.

Five day failure was similar (25% in HCC vs. 18% in non-HCC). HCC patients had greater 6-week rebleeding rates and 6-week mortality (16 and 30% vs. 7 and 15%, respectively).

Fewer patients with HCC received secondary prophylaxis after bleeding (77% vs. 89%), and standard combination therapy was used less frequently (58% vs. 70%). Secondary prophylaxis failure was more frequent (50% vs. 31%), and survival significantly shorter in

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patients with HCC (median survival 5 months versus greater than 38 months in patients without HCC).

Lack of prophylaxis included rebleeding and mortality. On multivariate analysis, Child-Pugh score, presence of HCC, portal vein thrombosis and lack of secondary prophylaxis were predictors of death.

It was concluded that patients with HCC and VB had worse prognosis than patients with VB without HCC. Secondary prophylaxis offers survival benefit in HCC patients.


Simeprevir Regimen in Treatment-Naïve Hepatitis C

A phase IIb, double-blind, placebo-controlled PILLAR Trial investigated the efficacy and safety of two different simeprevir (SMV) doses administered once daily with PEG IFN-a2a and RBV in treatment-naïve patients with HCV genotype 1 infection. Patients were randomized to one of five treatments (SMV 75 or 150 mg q.d.) for 12 or 24 weeks or placebo plus PEG, IFN, and RBV. Patients in the SMV arms stopped all treatment at week 24. If response-guided therapy (RGT) criteria were met, patients not meeting RGT continued with PEG Interferon and RBV until week 48, as did patients in the placebo control group. SVR rates measured 24 weeks after the planned end of treatment (SVR 24) were 74.7 to 86.1% in the SMA groups vs. 64.9% in the control group for all comparisons, except SMV 75 mg for 24 weeks.

RVR less than 25 iu/mL, undetectable at week 4, was achieved by 68 to 75.6% of SMV-treated and 5.2% of placebo-controlled patients. According to RGT criteria, 79.2 to 86.1% of SMV-treated patients completed treatment by week 24, 85.2% to 95.6% of these subsequently achieved SVR 24.

The adverse event profile was generally similar across the SMV and placebo control groups, with the exception of mild reversible hyperbilirubinemia, without serum aminotransferase abnormalities, associated with higher doses of SMV.

It was concluded that SMV daily in combination with PEG-IFN and RBV significantly improves SVR rates, compared with PEG-IFN and RBV alone, and allows the majority of patients to shorten their therapy duration to 24 weeks.


Eosinophilic Esophagitis and Responsiveness to PPI

To determine the prevalence of proton pump responsive eosinophilic esophagitis in patients undergoing upper endoscopy and to determine features that distinguish the two groups (responsive and nonresponsive), a prospective study was conducted at University of North Carolina from 2009 to 2011. A total of 223 subjects were enrolled, 173 had dysphagia and 50 did not. Of those with dysphagia, 66 (38%) had greater than 15 EOS/HPF. After the PPI trial, 40 (23%) were confirmed to have EoE (eosinophilic esophagitis), and 24 (14%), had PPI-REE. Of those without dysphagia, two (4%) had greater than 15 EOS/HPF. After the PPI trial, one (2%) had EoE.

Compared with EOE, PPI-REE patients were more likely to be older and male and less likely to have typical endoscopic findings of EoE. However, none of the individual factors was independently predictive of PPI-REE status on multivariable analysis. Similarly, although some endoscopic findings were differentially distributed between PPI-REE and EoE, none were significantly associated with disease status or multivariable analysis.

It was concluded that esophageal eosinophilia is common among patients undergoing EGD for dysphagia. Although EoE was seen in nearly 1/4 of patients with dysphagia, PPI-REE was almost as common and accounted for over 1/3 of those with greater than 15 EOS/HPF. No clinical or endoscopic features independently distinguished PPI-REE from EoE before the PPI trial period.


Murray H. Cohen, D.O., “From the Literature” Editor, is on the Editorial Board of Practical Gastroenterology.
GLUTEN FREE THERAPEUTICS LAUNCHES CELI•VITES
Breakthrough supplements for celiacs target body, bones and blood

PORTLAND, Maine – February 2014 – Gluten Free Therapeutics announced recently the launch of Celi•Vites (celivites.com), a line of scientifically formulated supplements designed specifically for those suffering from the debilitating effects of celiac disease or gluten intolerance. Committed to producing the highest quality nutritional supplements on the market, company founders worked with highly respected formulators to develop Body Heath and Blood Health supplements with the safest and most efficacious gluten-free ingredients available. The company plans to introduce its third product, a Bone Health supplement, in the first quarter of 2014.

“The long-term and hidden effects of celiac disease remain a serious concern, even for those who make a concerted effort to eliminate all sources of gluten from their diet and environment,” said Dr. Taylor Reynolds, vice president of research and development at Gluten Free Therapeutics. “We spent more than a year compiling current medical research to identify the common deficiencies in those newly diagnosed and living long-term with celiac disease and the deficiencies induced by restricting intake to what is currently available in the gluten-free marketplace. We then determined which forms of vitamins and minerals are best absorbed by the digestive system and utilized by the body. The result is a line of premium quality products that persons living with celiac disease or gluten intolerance can use to balance the gluten-free diet.”

For those living with celiac disease, the nutritional challenges are clear. Lifelong adherence to the gluten-free diet is currently the only treatment for celiac disease, but the diet is inherently lacking. For example, almost all “mainstream” foods—dairy, breads, grains, cereals, and most processed foods—are fortified with vitamins and minerals that help balance the diet and give us the nutrients we need to live healthfully. Gluten-free foods, on the other hand, are manufactured differently and are not required to offer those same fortifications. As a result, celiacs and those with gluten intolerance are missing out on some important nutrients.

Maintaining proper nutrition is made more complex by the fact that celiacs often suffer from malabsorption that prevents their bodies from accepting the nutrients naturally found in food. This widens the nutrient gap and increases the probability of concurrent nutritional deficiencies and sometimes results in anemia or low bone density (osteopenia or osteoporosis). Those with celiac disease also face the possibility of other disorders related to malnutrition, such as peripheral neuropathy. The right supplements can complement the diet and help celiacs regain and maintain robust health.

“We mined data from respected medical research and sought recommendations from industry leaders,” said Leigh Reynolds, company principal and president. “Using that information, we educated our formulators and sourced the finest ingredients available to create Celi•Vites. We believe they will soon be the product of choice to enhance the quality of life for celiacs and those with gluten intolerance.”

What makes Celi•Vites exceptional? First, Celi•Vites were created without diluting the premium ingredients with lesser forms, a common practice among supplement formulators. Furthermore, the products, unlike many of their counterparts, contain the correct recommended daily value (RDV) of each selected ingredient, ensuring that those suffering with celiac disease and those on a gluten-free diet truly get the nutrients they need while avoiding toxicities related to excess amounts of certain nutrients. In addition, Celi•Vites were created to be readily bioavailable. For example, the more readily absorbed and utilized chelated minerals and coenzyme forms of B-vitamins are provided, and all products are batch tested to be free of gluten to less than 5ppm.

Celi•Vites Body Health Formula includes:

- Adult multivitamin and multimineral supplement
- Active, coenzyme forms of B vitamins (including 5-methyltetrahydrofolate [5-MTHF]) – these are Body Ready
- Patented chelated minerals from Albion Labs for maximal absorption and utilization
- PureWay-C®, a highly absorbable form of vitamin C
- A proprietary blend of bio-enhancing phytonutrients
- Supports healthy digestion with betaine hydrochloride

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Celi•Vites Blood Health Formula includes:

- Ferrochel®, a patented form of chelated iron, with three times the bioavailability of ferrous sulfate
- Research showed that Ferrochel® resulted in zero gastrointestinal complaints
- PureWay-C®, a highly absorbable form of vitamin C, for increased iron absorption
- 5-MTHF, the Body Ready, coenzyme form of folic acid, for red blood cell development
- Body Ready, coenzyme form of vitamin B12 to support nerve function + red blood cell development

The Bone Health formulation will be on the market in the first quarter of 2014. Celi•Vites Bone Health includes:

- 180mcg of Vitamin K2 as menaquinone-7 (MK-7)
- Aquamin®, a highly absorbable plant-based source of calcium
- Balanced proportions of magnesium and potassium citrate
- 1000 IU of Vitamin D3
- Orange flavor powder – simply add to juice or water

About Celi•Vites Creators

With more than two decades of experience as executive management in the pharmaceutical and retail sectors, before launching Celi•Vites, company Principal and President Leigh Reynolds was the chief operating officer of a Boston-based pharmaceutical company with multinational distribution and was responsible for the company’s highly successful startup through its profitable sale. Her expertise includes supply chain sourcing and management, quality and regulatory system oversight, product development, manufacturing, marketing and sales.

Dr. Taylor Reynolds is a veterinary pathologist/scientist with a focus on the immune system. She received a B.A. from Colorado College, a D.V.M. from Tufts University School of Veterinary Medicine, and a Ph.D. from Johns Hopkins University School of Medicine. While studying for her residency in her early 30s, Taylor was diagnosed with celiac disease. She joined her mother’s company in order to help others in similar circumstances, and her education and extensive training made her a natural fit. Today, in addition to her thriving career, she serves as the vice president of research and development at Gluten Free Therapeutics.

About Gluten Free Therapeutics/Celi•Vites

Maine-based Gluten Free Therapeutics is the parent company of Celi•Vites, a line of scientifically formulated supplements designed specifically for those with gluten intolerance and those suffering from the debilitating effects of celiac disease. Company founders are committed to creating the highest quality products on the market, and therefore, Celi•Vites are made with the most efficacious and safe gluten-free ingredients available. The company formulated the line by mining data from in-depth medical research, partnering with industry leaders and implementing contemporary best practices. Launched in the fall of 2013, the Body Health and Blood Health supplements are available online at Celivites.com and Amazon.com. The Bone Health supplement will be introduced by the first quarter of 2014. For more information on Celi•Vites or to schedule an interview with Leigh or Taylor Reynolds, contact:

Ann Ewing, Ewing Communications
615-419-3753 or aewing62@gmail.com

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CERNOSTICS COLLABORATES WITH PRESTIGIOUS ACADEMIC MEDICAL CENTER IN THE NETHERLANDS

Collaboration will provide Cernostics with access to one of the largest Barrett’s Esophagus patient registries in the world

PITTSBURGH, Pa. – January 7, 2013 – Cernostics, a diagnostics company focused on delivering next generation cancer diagnostics through a unique approach to tissue analysis, announced that it is collaborating with the Academic Medical Center in The Netherlands (AMC). As part of the collaboration, AMC will be providing Cernostics with access to one of the largest Barrett’s Esophagus patient registries in the world, which Cernostics will use, along with other data, to complete clinical validation studies of its lead product TissueCypher: Barrett’s.

Under the leadership of Dr. Jacques Bergman, the AMC has developed one of the leading research positions in the world concerning endoscopic treatment and detection of Barrett’s Esophagus and esophageal cancer. Dr. Bergman and colleagues at AMC have developed one of the largest Barrett’s Esophagus registries in the world, and have thus far identified 5,000 patients from 16 hospitals in the Amsterdam region.

“Over the last 25 years we have seen a tremendous increase in the incidence of esophageal cancer due to chronic reflux and Barrett’s esophagus,” said Dr. Jacques Bergman, Director of Endoscopy, Professor of Gastroenterology Endoscopy, and Head of Esophageal Research at Academic Medical Center. “We are very pleased to be working with Cernostics to improve how physicians identify which Barrett’s patients are at risk for developing esophageal cancer and believe the TissueCypher technology platform could be a major medical breakthrough in how we manage Barrett’s patients in the future.”

Cernostics’ lead product under development, TissueCypher: Barrett’s, uses whole slide digital imaging technology to produce comprehensive risk prediction for the development of esophageal cancer in patients with Barrett’s Esophagus. TissueCypher: Barrett’s will focus on eliminating uncertainty related to the treatment of Barrett’s Esophagus and will provide actionable information to doctors and patients.

“We are honored to be working with Dr. Bergman and the AMC,” said Mike Hoerres, Chief Executive Officer of Cernostics. “Both of our organizations are passionate about preventing esophageal cancer through improved diagnosis and prognosis of Barrett’s Esophagus. AMC’s impressive patient registry and thought leadership will play a critical role in the development of TissueCypher: Barrett’s.”

The Cernostics clinical collaborative network also includes Geisinger Health System, the University of Pittsburgh, and the University of Pennsylvania. To learn more about Cernostics and its product pipeline, please visit www.cernostics.com

About Cernostics

Cernostics is focused on delivering next generation cancer diagnostics and prognostics through an innovative approach to tissue analysis – the evaluation of the tumor as a system composed of multiple interacting cell types, including tumor, immune, and stromal cells. Its patent-protected technology platform, TissueCypher, uniquely analyzes whole slide digital images with multiplexed fluorescence, and is designed to provide greater information and accuracy than traditional tissue diagnostics. Cernostics’ lead product, TissueCypher: Barrett’s, will deliver the most comprehensive evaluation of esophageal cancer risk for Barrett’s Esophagus patients currently available, providing actionable information to gastroenterologists and pathologists. For more information, visit www.cernostics.com
MEETINGS CALENDAR

May 3 - 6, 2014 Digestive Disease Week
Exhibit Dates: May 4 – 6
McCormick Place, Chicago, IL – Join the world’s largest gathering of physicians and researchers in the fields of gastroenterology, hepatology, endoscopy and gastrointestinal surgery. Discover for yourself why DDW® is the gold-standard event in the field. Explore the top-quality educational sessions, abundant networking opportunities and cutting-edge research the meeting offers.
Explore the DDW 2013 program with MyDDW. DDW 2014 program details will be available in April 2014. For more information, visit: http://www.ddw.org

May 17 - 21, 2014 ASCRS Annual Scientific Meeting
Westin Diplomat Resort & Convention Center, Hollywood, FL – The American Society of Colon & Rectal Surgeons is the premier society for colon and rectal surgeons and other surgeons dedicated to advancing the science and treatment of diseases and disorders affecting the colon, rectum and anus. More than 1,000 of the Society’s 3,000 physician members are certified by the American Board of Colon and Rectal Surgery. The ASCRS Annual Scientific Meeting is the leading event in the field of colon and rectal surgery and more than 1,800 colorectal specialists are expected to attend. The meeting will include oral and poster presentations, expert panels, symposia, meet the professor breakfasts and many other sessions encouraging audience participation. For more information, visit: www.fascrs.org/annual_meeting

September 16, 2014 Raising C Diff Awareness Conference
Royal Holloway, University of London, Egham Hill, Surrey, England – The C Diff Foundation, a nonprofit organization, is pleased to host the annual “Raising C Diff Awareness” Conference. Tuesday, September 16th, 2014 8:00 am – 4:30 pm
Registration anticipating to be open March 1, 2014 with additional details and a list of confirmed Guest Speakers. Exhibit Space is limited and Sponsorships are available. For more information contact Nancy C. Caralla, Executive Director at (919) 201-1512 or email the Foundation at: cdiff.foundation@yahoo.com or visit the website: www.cdifffoundation.org
C Diff Foundation: Educating, and advocating for C. diff. prevention, treatments, and environmental safety worldwide.
PRACTICAL GASTROENTEROLOGY CROSSWORD PUZZLE

by Myles Mellor

DOWN
1. Aka hexadecanoic acid
2. Summer month, for short
3. The E of MRE
4. Extremities
5. Bedridden
7. Doctor’s ____ (instructions)
8. It’s often used to clone eukarytic genes in prokaryotes
11. Emotional intelligence (abbr.)
13. Asclepius’ nationality
15. Serious
16. People in general
17. Number the binary system is based on.
18. Complex anatomical part of a living thing
19. Generate the organic processes that are necessary for life
21. Suffix meaning undo
24. One billionth (10^-9) of a second
25. Datum on a patient form
27. The V in AVB
28. Compounds consisting of a large number of monosaccharides linked glycosidically
29. Conforming to accepted moral standards
32. Decompose
33. It’s required in all drug packaging
39. Refusal
40. Compass point

ACROSS
1. Blood clotting essential
5. ____ colonoscopy
9. Unit of luminous flux
10. Inflamed
12. Closed off an artery or vessel
13. Protein found in wheat associated with celiac disease
14. Acquired during fetal development
16. Diet high in meat and fat
18. Determine
20. Include
22. It gets colonized intestinally immediately after delivery
23. Rounded protuberance
25. Toxic nonmetallic element related to sulfur and tellurium
26. Brittle silver-white metalloid element
27. Thoroughly investigate
28. Small compact particle of a substance
30. Category of animal of plant group
31. Cigarette ingredient
33. Stretch out
34. Emerge as a larva
35. ____ saccharides
36. Cereal grain high in fiber
37. Monitor
38. Half
41. Injury to living tissue
42. Liquid motion
43. Prevaricate

(Answers on page 43)