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C. N. Bernstein, C. Burchill, L. E. Targownik, H. Singh, and L. L. Roos

See editorial on page 2124.

Maternal diagnoses of IBD, infections in the first year of life and a higher socioeconomic status at birth are risk factors for developing IBD later in life.

2198 Efficacy of Per-oral Methylene Blue Formulation for Screening Colonoscopy

A. Repici, M. B. Wallace, J. E. East, P. Sharma, F. C. Ramirez, D. H. Bruining, M. Young, D. Gatof, M. Irene (Mimi) Canto, N. Marcon, R. Cannizzaro, R. Kiesslich, M. Rutter, E. Dekker, P. D. Siersema, M. Spaander, L. Kupcinskas, L. Jonaitis, R. Bisschops, F. Radaelli, P. Bhandari, A. Wilson, D. Early, N. Gupta, M. Vieth, G. Y. Lauwers, M. Rossini, and C. Hassan

See editorial on page 2126.

In a phase 3 randomized trial on screening and surveillance colonoscopy, a novel per-oral methylene blue formulation directly delivered to the colorectal mucosa led to an absolute 8.5% increase in the detection of colorectal neoplasia.

2208 Efficacy of Injection of Freshly Collected Autologous Adipose Tissue Into Perianal Fistulas in Patients With Crohn's Disease

A. Dige, H. T. Hougaard, J. Agnholt, B. G. Pedersen, M. Tencerova, M. Kassem, K. Krogh, and L. Lundby See editorial on page 2128.

The effect of injection with freshly collected autologous adipose tissue in Crohn's disease fistulas was investigated. The overall healing rate was 57% and the treatment was safe.

2217 Association Between Antibiotics in the First Year of Life and Celiac Disease

S. Dydensborg Sander, A.-M. Nybo Andersen, J. A. Murray, Ø. Karlstad, S. Husby, and K. Størdal

Systemic antibiotics in the first year of life were associated with celiac disease in a register-based cohort study in Denmark and Norway including more than 1.7 million children, 3,346 diagnosed with celiac disease.

Clinical—Liver

www

2230 Incidence and Etiology of Drug-Induced Liver Injury in Mainland China

T. Shen, Y. Liu, J. Shang, Q. Xie, J. Li, M. Yan, J. Xu, J. Niu, J. Liu, P. B. Watkins, G. P. Aithal, R. J. Andrade, X. Dou, L. Yao, F. Lv, Q. Wang, Y. Li, X. Zhou, Y. Zhang, P. Zong, B. Wan, Z. Zou, D. Yang, Y. Nie, D. Li, Y. Wang, X. Han, H. Zhuang, Y. Mao, and C. Chen

Drug-induced liver injury (DILI) has a higher incidence in mainland China than in western countries and traditional Chinese medicines, herbal and dietary supplements, and anti-tuberculosis drugs are major categories of agents causing DILI.

Clinical—Pancreas

Real-Time Targeted Genome Profile Analysis of Pancreatic Ductal Adenocarcinomas Identifies Genetic Alterations That Might Be Targeted With Existing Drugs or Used as Biomarkers

A. D. Singhi, B. George, J. R. Greenbowe, J. Chung, J. Suh, A. Maitra, S. J. Klempner, A. Hendifar, J. M. Milind, T. Golan, R. E. Brand, A. H. Zureikat, S. Roy, A. B. Schrock, V. A. Miller, J. S. Ross, S. M. Ali, and N. Bahary

Targeted genomic profiling found 17% of PDACs harbored genomic alterations that may confer susceptibility to currently available anticancer therapy. Further, genomic alterations that may be important for future early detection strategies were also identified.

Basic and Translational—Alimentary Tract

2254 Blood-Derived DNA Methylation Signatures of Crohn's Disease and Severity of Intestinal Inflammation

H. K. Somineni, S. Venkateswaran, V. Kilaru, U. M. Marigorta, A. Mo, D. T. Okou, R. Kellermayer, K. Mondal, D. Cobb, T. D. Walters, A. Griffiths, J. D. Noe, W. V. Crandall, J. R. Rosh, D. R. Mack, M. B. Heyman, S. S. Baker, M. C. Stephens, R. N. Baldassano, J. F. Markowitz, M. C. Dubinsky, J. Cho, J. S. Hyams, L. A. Denson, G. Gibson, D. J. Cutler, K. N. Conneely, A. K. Smith, and S. Kugathasan

In an analysis of DNA methylation patterns in blood samples from pediatric patients with Crohn's disease, changes in methylation patterns of DNA associate with inflammation, and are therefore less likely to contribute to disease development or progression.

Lactobacilli Degrade Wheat Amylase Trypsin Inhibitors to Reduce Intestinal Dysfunction 2266 **Induced by Immunogenic Wheat Proteins** www

A. Caminero, J. L. McCarville, V. F. Zevallos, M. Pigrau, X. B. Yu, J. Jury, H. J. Galipeau, A. V. Clarizio, J. Casqueiro, J. A. Murray, S. M. Collins, A. Alaedini, P. Bercik, D. Schuppan, and E. F. Verdu

Non-gluten wheat proteins, amylase trypsin inhibitors (ATI), can cause gut dysfunction in mice. Probiotics that digest ATI could be developed to support or replace exclusion diets in people with wheat sensitivity.

2281 MicroRNA-31 Reduces Inflammatory Signaling and Promotes Regeneration in Colon Epithelium, and Delivery of Mimics in Microspheres Reduces Colitis in Mice

Y. Tian, J. Xu, Y. Li, R. Zhao, S. Du, C. Lv, W. Wu, R. Liu, X. Sheng, Y. Song, X. Bi, G. Li, M. Li, X. Wu, P. Lou, H. You, W. Cui, J. Sun, J. Shuai, F. Ren, B. Zhang, M. Guo, X. Hou, K. Wu, L. Xue, H. Zhang, M. V. Plikus, Y. Cong, C. J. Lengner, Z. Liu, and Z. Yu

MIR31 attenuates the immune response and promotes epithelial regeneration within epithelium in colitis, and consequently delivery of MIR31 mimics in microspheres reduces colitis in mice.

2297 GNAI1 and GNAI3 Reduce Colitis-Associated Tumorigenesis in Mice by Blocking IL6 Signaling and Down-regulating Expression of GNAI2

Z.-W. Li, B. Sun, T. Gong, S. Guo, J. Zhang, J. Wang, A. Sugawara, M. Jiang, J. Yan, A. Gurary, X. Zheng, B. Gao, S.-Y. Xiao, W. Chen, C. Ma, C. Farrar, C. Zhu, O. T. M. Chan, C. Xin, A. Winnicki, J. Winnicki, M. Tang, R. Park, M. Winnicki, K. Diener, Z. Wang, Q. Liu, C. H. Chu, Z. L. Arter, P. Yue, L. Alpert, G. S. Hui, P. Fei, J. Turkson, W. Yang, G. Wu, A. Tao, J. W. Ramos, S. Moisyadi, R. F. Holcombe, W. Jia, L. Birnbaumer, X. Zhou, and W.-M. Chu

This study found a significant association between low expression of G protein subunit alpha i1 (GNAI1) and GNAI3, and high expression of GNAI2, with the development of colitis-associated cancer.

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2313 HCV-Induced Epigenetic Changes Associated With Liver Cancer Risk Persist After Sustained **Virologic Response**

N. Hamdane, F. Jühling, E. Crouchet, H. El Saghire, C. Thumann, M. A. Oudot, S. Bandiera, A. Saviano, C. Ponsolles, A. A. Roca Suarez, S. Li, N. Fujiwara, A. Ono, I. Davidson, N. Bardeesy, C. Schmidl, C. Bock, C. Schuster, J. Lupberger, F. Habersetzer, M. Doffoël, T. Piardi, D. Sommacale, M. Imamura, T. Uchida, H. Ohdan, H. Aikata, K. Chayama, T. Boldanova, P. Pessaux, B. C. Fuchs, Y. Hoshida, M. B. Zeisel, F. H. T. Duong, and T. F. Baumert

See editorial on page 2130.

HCV infection leaves "footprints" in the liver that are not disappearing following cure. This may explain why some patients with advanced liver disease develop liver cancer despite successful eradication of infection.

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