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 (www) *K. Sugano, S. F. Moss, and E. J. Kuipers*

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- 1400 Clinical Decision Support Tool: Role of Biomarkers for Crohn's Disease**

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ORIGINAL RESEARCH

Full Reports

GI Cancer

- 1404 Traditional Medicine Pien Tze Huang Suppresses Colorectal Tumorigenesis Through Restoring Gut Microbiota and Metabolites**
 (www) *H. Gou, H. Su, D. Liu, C. C. Wong, H. Shang, Y. Fang, X. Zeng, H. Chen, Y. Li, Z. Huang, M. Fan, C. Wei, X. Wang, X. Zhang, X. Li, and J. Yu*

Pien Tze Huang is a chemopreventive formulation that suppresses colorectal cancer by means of improving the gut microbiota profile and inhibition of gut inflammation and cell proliferation.

- 1420 Predicting Incident Adenocarcinoma of the Esophagus or Gastric Cardia Using Machine Learning of Electronic Health Records**
 (CME) (www) *J. H. Rubenstein, S. Fontaine, P. W. MacDonald, J. A. Burns, R. R. Evans, M. E. Arasim, J. W. Chang, E. M. Firsh, S. T. Hawley, S. D. Saini, L. P. Wallner, J. Zhu, and A. K. Waljee*

The Kettles Esophageal and Cardia Adenocarcinoma prediction tool was developed and validated using a form of artificial intelligence of routine electronic medical records to predict which patients would develop particular types of cancer of the esophagus or stomach years in advance.

- 1430 Development and Validation of a Post-Radiotherapy Prediction Model for Bowel Dysfunction After Rectal Cancer Resection**
 (www) *Q. Qin, B. Huang, A. Wu, J. Gao, X. Liu, W. Cao, T. Ma, Y. Kuang, J. Guo, Q. Wu, B. Shao, Q. Guan, H. Yao, X. Zhang, and H. Wang, on behalf of the Chinese Radiation Intestinal Injury Research Group*

A novel risk model was developed and validated to predict major bowel dysfunction after restorative rectal cancer resection with radiotherapy, achieving high accuracy and robustness.

Inflammatory Bowel Disease

1443 Guselkumab in Patients With Moderately to Severely Active Ulcerative Colitis: QUASAR Phase 2b Induction Study

www

L. Peyrin-Biroulet, J. R. Allegretti, D. T. Rubin, B. Bressler, M. Germinaro, K.-H. (Gary) Huang, N. Shipitofsky, H. Zhang, R. Wilson, C. Han, B. G. Feagan, W. J. Sandborn, J. Panés, T. Hisamatsu, G. R. Lichtenstein, B. E. Sands, and A. Dignass, on behalf of the QUASAR Study Group

Improvement at 12 weeks was greater with intravenous guselkumab vs placebo. Guselkumab-treated patients without a clinical response at 12 weeks benefited from additional guselkumab administered subcutaneously. Guselkumab was well tolerated.

Functional GI Disease

1458 Hypoxia-Inducible Factor 1 α Stabilization Restores Epigenetic Control of Nitric Oxide

www

Synthase 1 Expression and Reverses Gastroparesis in Female Diabetic Mice

F. Gao, Y. Hayashi, S. A. Saravanaperumal, G. B. Gajdos, S. A. Syed, A. V. Bhagwate, Z. Ye, J. Zhong, Y. Zhang, E. L. Choi, S. M. Kvasha, J. Kaur, B. D. Paradise, L. Cheng, B. W. Simone, A. M. Wright, T. A. Kellogg, M. L. Kendrick, T. J. McKenzie, Z. Sun, H. Yan, C. Yu, A. E. Bharucha, D. R. Linden, J.-H. Lee, and T. Ordog

This study identifies a transcription factor that is required for the normal production of the main inhibitory neurotransmitter in the gastrointestinal tract and demonstrates that increasing its levels using a drug that is already approved for humans can reverse diabetic gastroparesis in female mice.

1475 Prevalence and Burden of Illness of Rome IV Irritable Bowel Syndrome in the United States: Results From a Nationwide Cross-Sectional Study

www

C. V. Almario, E. Sharabi, W. D. Chey, M. Lauzon, C. S. Higgins, and B. M. R. Spiegel

In a nationwide survey of nearly 89,000 people in the United States, 6.1% of people met Rome IV criteria for irritable bowel syndrome. Women had higher odds for irritable bowel syndrome compared with men, and racial/ethnic minorities had lower odds for irritable bowel syndrome compared with non-Hispanic Whites.

Pancreas

1488 Pancreatic Acinar Cells-Derived Sphingosine-1-Phosphate Contributes to Fibrosis of Chronic Pancreatitis via Inducing Autophagy and Activation of Pancreatic Stellate Cells

www

D. Wang, S. Han, G. Lv, Y. Hu, W. Zhuo, Z. Zeng, J. Tang, Y. Huang, F. Wang, J. Wang, Y. Zhao, and G. Zhao

The present study demonstrated that injured acinar cells promote autophagy and activation of pancreatic stellate cells and then contribute to fibrogenesis of chronic pancreatitis.

1505 Cell-in-Cell-Mediated Entosis Reveals a Progressive Mechanism in Pancreatic Cancer

www

J. Song, R. Xu, H. Zhang, X. Xue, R. Ruze, Y. Chen, X. Yin, C. Wang, and Y. Zhao

Entosis plays a pivotal role in pancreatic ductal adenocarcinoma progression by generating cancer cells with enhanced malignant behavior. Targeting the entotic processes of pancreatic ductal adenocarcinoma cells may be an optional therapeutic strategy.

1522 The Natural Disease Course of Pancreatic Cyst-Associated Neoplasia, Dysplasia, and Ductal Adenocarcinoma: Results of a Microsimulation Model

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B. D. M. Koopmann, N. Dunnewind, L. A. van Duuren, I. Lansdorp-Vogelaar, S. K. Naber, D. L. Cahen, M. J. Bruno, and I. M. C. M. de Kok, on behalf of the Dutch Pancreatic Cancer Group

See editorial on page 1328.

This study provided insight into the natural development of pancreatic cancer using a microsimulation model. Knowledge on this process, including stage durations, is of pivotal importance to establish the potential success of pancreatic cancer screening.

- 1533 Automated Artificial Intelligence Model Trained on a Large Data Set Can Detect Pancreas Cancer on Diagnostic Computed Tomography Scans As Well As Visually Occult Preinvasive Cancer on Prediagnostic Computed Tomography Scans**
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An automated artificial intelligence model shows promise for early pancreas cancer detection on standard computed tomographic scans at a stage when surgical cure may be possible.

- 1547 Multistate Model of the Natural History of Inflammatory Pancreatic Diseases: A Nationwide Population-based Cohort Study**

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See editorial on page 1329.

More than one-half of the patients diagnosed with chronic pancreatitis have no history of acute pancreatitis. The risk of pancreatic cancer in patients with inflammatory pancreatic diseases (acute or chronic) is low.

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