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TABLE OF
CONTENTS

Contents

ON THE COVER

See article by Cook et al on page 1584 for additional information.



COVERING THE COVER

1445 A. T. Chan and C. S. Williams

COMMENTARIES

1448 Factors to Consider in Development of Drugs for Pediatric Nonalcoholic Fatty Liver Disease

M. B. Vos, L. Dimick-Santos, R. Mehta, S. O. Omokaro, J. Taminiaw, E. Schabel, D. E. Kleiner, P. Sztanyi, P. Socha, J. B. Schwimmer, S. Noviello, D. G. Silberg, R. Torstenson, V. Miller, and J. E. Lavine, On behalf of the Liver Forum Pediatric Working Group

1457 Competition for Clinical Trials in Inflammatory Bowel Diseases

M. S. Harris, J. Wichary, M. Zadnik, and W. Reinisch

MEETING SUMMARY

1462 A Summary of Education Scholarship Presented at DDW 2019 and a Vision for the Future

C. K. Dilly, M. J. Whitson, S. A. Pfeil, and A. J. DeCross

MENTORING, EDUCATION, AND TRAINING CORNER

1469 How to "DEAL" With Disruptive Physician Behavior

Z. Junga, A. Tritsch, and M. Singla

Video Related article in CGH Hot Papers From New Investigators

CME quiz Editorial accompanies this article Additional online content available Cover

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EDITORIALS

- 1473** Retreatment Options for Patients Who Failed Direct-Acting Antiviral Regimens Containing NS5A Inhibitors: Is Glecaprevir/Pibrentasvir a Valid and Robust Option?

M. Bourliere

See Lok AS et al on page 1506.

- 1475** Oncofetal SALL4-Driven Tumorigenesis Is Highly Dependent on Oxidative Phosphorylation, Revealing Therapeutic Opportunities

T. Liu and N. Shyh-Chang

See Tan JL et al on page 1615.

- 1477** A Dive Into the Deep Heterogeneity of Hepatocellular Carcinoma

S. Caruso and J.-C. Nault

See Ding X et al on page 1630.

CLINICAL CHALLENGES AND IMAGES IN GI

- 1480** Verrucous Plaques of the Buttocks, Perineum, and Umbilicus

J. M. Bittar, K. Burton, and S. Rahnama

- 1483** The Little Beast That Pretended to Be a Severe Crohn's Disease

A. Debourdeau, L. Boivineau, and S. Iltache

- 1485** A Slow and Distended Stomach

A. K. Kamboj, A. C. Bledsoe, and A. S. Arora

- 1487** An Unusual Gastrointestinal Cause of Hypokalemia

P. Chhabra, V. V. Mittal, and R. Ambastha

ELECTRONIC CLINICAL CHALLENGES AND IMAGES IN GI

For a full list, please see the table of contents online at www.gastrojournal.org.

PRACTICAL TEACHING CASES

- 1490** An Unusual Cause of Abdominal Pain

A. C. Baxi, P. E. Swanson, and Y. Tomizawa

- 1492** Diarrhea in a Patient Receiving Chemotherapy

CME *M. Majeed, R. Agrawal, and S. Gandhi*

ORIGINAL RESEARCH

Full Reports

Clinical—Alimentary Tract

1494 **Effect of Sex, Age, and Positivity Threshold on Fecal Immunochemical Test Accuracy: A Systematic Review and Meta-analysis**

www CME

K. Selby, E. H. Levine, C. Doan, A. Gies, H. Brenner, C. Quesenberry, J. K. Lee, and D. A. Corley

Quantitative fecal immunochemical tests, or FITs, are commonly used for colorectal cancer screening. Screening programs could detect significantly more cancers and polyps by using lower thresholds to define a positive result, provided they have enough specialists to perform the necessary follow-up colonoscopies.

Clinical—Liver

1506 **Efficacy of Glecaprevir and Pibrentasvir in Patients With Genotype 1 Hepatitis C Virus Infection With Treatment Failure After NS5A Inhibitor Plus Sofosbuvir Therapy**

E www

A. S. Lok, M. S. Sulkowski, J. J. Kort, I. Willner, K. R. Reddy, M. L. Shiffman, M. A. Hassan, B. L. Pearlman, F. Hineostrova, I. M. Jacobson, G. Morelli, J. A. Peter, M. Vainorius, L. C. Michael, M. W. Fried, G. P. Wang, W. Lu, L. Larsen, and D. R. Nelson

See editorial on page 1473

Sixteen weeks treatment with the combination of glecaprevir and pibrentasvir cures HCV genotype 1 infection in most patients—even patients with compensated cirrhosis and in patients with unsuccessful previous treatments with direct-acting antiviral drugs.

1518 **High Level of Hepatitis B Core-Related Antigen Associated With Increased Risk of Hepatocellular Carcinoma in Patients With Chronic HBV Infection of Intermediate Viral Load**

www

T.-C. Tseng, C.-J. Liu, C.-Y. Hsu, C.-M. Hong, T.-H. Su, W.-T. Yang, C.-L. Chen, H.-C. Yang, Y.-T. Huang, S. Fang-Tzu Kuo, C.-H. Liu, P.-J. Chen, D.-S. Chen, and J.-H. Kao

Hepatitis B core-related antigen, a novel hepatitis B viral marker, is useful in stratifying HCC risks in treatment-naïve HBV patients with intermediate viral load.

Basic and Translational—Alimentary Tract

1530 **Antigen-Specific Mucosal Immunity Regulates Development of Intestinal Bacteria-Mediated Diseases**

www

K. Fujimoto, Y. Kawaguchi, M. Shimohigoshi, Y. Gotoh, Y. Nakano, Y. Usui, T. Hayashi, Y. Kimura, M. Uematsu, T. Yamamoto, Y. Akeda, J. H. Rhee, Y. Yuki, K. J. Ishii, S. E. Crowe, P. B. Ernst, H. Kiyono, and S. Uematsu

Intramuscular injection with antigens combined with CpG-ODN and curdlan followed by antigen boosting induces antigen-specific mucosal and systemic immunity with the potential to prevent infectious and commensal microbiota-associated diseases.

1544 **Sperm Flagellar 1 Binds Actin in Intestinal Epithelial Cells and Contributes to Formation of Filopodia and Lamellipodia**

www

R. Tapia, E. A. Perez-Yepe, M. J. Carlino, U. C. Karandikar, S. E. Kralicek, M. K. Estes, and G. A. Hecht

Sperm Flagellar 1 is a novel protein that may participate in intestinal epithelial cell development and movement.

- 1556** **Activation of Hedgehog Signaling Promotes Development of Mouse and Human Enteric Neural Crest Cells, Based on Single-Cell Transcriptome Analyses**
S.-T. Lau, Z. Li, F. Pui-Ling Lai, K. Nga-Chu Lui, P. Li, J. O. Munera, G. Pan, M. M. Mahe, C.-C. Hui, J. M. Wells, and E. Sau-Wai Ngan

Pathways were identified by which pluripotent stem cells differentiate into neural crest cells. These pathways might be used to develop therapies for degenerative diseases.

- 1572** **Interleukin 1 beta and Matrix Metalloproteinase 3 Contribute to Development of Epidermal Growth Factor Receptor-Dependent Serrated Polyps in Mouse Cecum**
Z. He, L. Chen, G. Chen, P. Smaldini, G. Bongers, J. Catalan-Dibene, G. C. Furtado, and S. A. Lira

In mice that develop serrated polyps, this work identified cells and proteins that contribute to polyp development. Strategies to block these cells or proteins might be developed for prevention of colon polyps.

- 1584** **Suppressive and Gut-Reparative Functions of Human Type 1 T Regulatory Cells**
L. Cook, M. Stahl, X. Han, A. Nazli, K. N. MacDonald, M. Q. Wong, K. Tsai, S. Dizzell, K. Jacobson, B. Bressler, C. Kaushic, B. A. Vallance, T. S. Steiner, and M. K. Levings

A population of cells in the immune system, called Tr1 cells, were identified that downregulate the immune response in the intestine. These cells might be used to reduce intestinal inflammation in patients with inflammatory bowel diseases.

- 1599** **Mouse Models of Human Gastric Cancer Subtypes With Stomach-Specific CreERT2-Mediated Pathway Alterations**
T. Seidlitz, Y.-T. Chen, H. Uhlemann, S. Schölch, S. Kochall, S. R. Merker, A. Klimova, A. Hennig, C. Schweitzer, K. Pape, G. B. Baretton, T. Welsch, D. E. Aust, J. Weitz, B.-K. Koo, and D. E. Stange

Mutations were introduced into mice that caused the development of the different types of stomach cancer found in patients. These mice can be studied to learn how these tumors develop and how they can be treated.

Basic and Translational—Liver

- 1615** **New High-Throughput Screening Identifies Compounds That Reduce Viability Specifically in Liver Cancer Cells That Express High Levels of SALL4 by Inhibiting Oxidative Phosphorylation**
J. L. Tan, F. Li, J. Z. Yeo, K. J. Yong, M. A. Bassal, G. H. Ng, M. Y. Lee, C. Y. Leong, H. K. Tan, C.-s. Wu, B. H. Liu, T. H. Chan, Z. H. Tan, Y. S. Chan, S. Wang, Z. H. Lim, T. B. Toh, L. Hooi, K. N. Low, S. Ma, N. R. Kong, A. J. Stein, Y. Wu, M. T. Thangavelu, A. Suzuki, G. Periyasamy, J. M. Asara, Y. Y. Dan, G. K. Bonney, E. K. Chow, G.-D. Lu, H. H. Ng, Y. Kanagasundaram, S. B. Ng, W. L. Tam, D. G. Tenen, and L. Chai

See editorial on page 1475

Liver tumors overexpress a protein called SALL4, which causes them to become dependent on specific metabolic pathways for survival. A set of compounds was identified that induce the death of these cancer cells by inhibiting this pathway.

- 1630** **Genomic and Epigenomic Features of Primary and Recurrent Hepatocellular Carcinomas**
X. Ding, M. He, A. W. H. Chan, Q. X. Song, S. C. Sze, H. Chen, M. K. H. Man, K. Man, S. L. Chan, P. B. S. Lai, X. Wang, and N. Wong

See editorial on page 1477

Features of cirrhotic or fibrotic liver tissues and tumors were identified that might be used as markers for tumor development or recurrence.

Basic and Translational—Pancreas

1646 **The Histone Demethylase KDM3A, Increased in Human Pancreatic Tumors, Regulates Expression of DCLK1 and Promotes Tumorigenesis in Mice**

P. Dandawate, C. Ghosh, K. Palaniyandi, S. Paul, S. Rawal, R. Pradhan, A. A. A. Sayed, S. Choudhury, D. Standing, D. Subramaniam, S. B. Padhye, S. Gunewardena, S. M. Thomas, M. O'Neil, O. Tawfik, D. R. Welch, R. A. Jensen, S. Maliski, S. Weir, T. Iwakuma, S. Anant, and A. Dhar

Levels of histone lysine demethylase 3A (KDM3A), a transcriptional regulator, were found to be increased in pancreatic cancer cells and human pancreatic tumors. KDM3A increases activities of cells that contribute to tumor formation.

1660 **Ca²⁺ Influx Channel Inhibitor SARAF Protects Mice From Acute Pancreatitis**

A. Son, M. Ahuja, D. M. Schwartz, A. Varga, W. Swaim, N. Kang, J. Maleth, D. M. Shin, and S. Muallem

A protein was identified that is degraded during development of pancreatitis, resulting in extra influx of calcium into pancreatic cells. Restoring this protein to pancreatic cells might reduce pancreatic tissue damage in patients with acute pancreatitis.

CONTINUING MEDICAL EDUCATION (CME)/MOC ACTIVITIES

e15 **CME Exam 1: Diarrhea in a Patient Receiving Chemotherapy**

e17 **CME Exam 2: Effect of Sex, Age and Positivity Threshold on Fecal Immunochemical Test Accuracy: A Systematic Review and Meta-Analysis**

BRIEF COMMUNICATIONS

1673 **Eradication of *Helicobacter pylori* in Children Restores the Structure of the Gastric Bacterial Community to That of Noninfected Children**

C. A. Serrano, R. Pierre, W. J. Van Der Pol, C. D. Morrow, P. D. Smith, and P. R. Harris

1676 **Decreased Complexity of Serum N-glycan Structures Associates with Successful Fecal Microbiota Transplantation for Recurrent *Clostridioides difficile* Infection**

T. M. Monaghan, M. Pučić-Baković, F. Vučković, C. Lee, D. Kao, and the Human Glycome Project

1679 **Rates of Elective Colectomy for Diverticulitis Continued to Increase After 2006 Guideline Change**

P. D. Strassle, A. C. Kinlaw, N. Chaumont, H. L. Angle, S. T. Lumpkin, M. J. Koruda, and A. F. Peery

SELECTED SUMMARIES

1682 **Nucleos(t)ide Analog Therapy of Chronic Hepatitis B and Liver Cancer Risk Reduction: Better Nucleotides than Nucleosides?**

P. Lampertico and M. Colombo

1684 **Durability and Effectiveness of Cognitive-Behavioral Therapy for Irritable Bowel Syndrome**

J. Shapiro, H. B. El-Serag, and J. Chan

1686 **A Mechanistic Insight Into the Role of Gut Microbiota in the Pathogenesis of Primary Sclerosing Cholangitis**

M. Patel, A. J. M. Watson, and S. Rushbrook

CORRESPONDENCE

1689 Plasticity of Th17 Cells Contributes to Crohn's Disease

Y. Guo and A.-P. Bai

1690 Adipose-Derived Therapeutic Products for the Management of Refractory Crohn's Fistula

F. Grimaud, M. Serrero, and J. Magalon

1691 Cost-Effectiveness and National Effects of Initiating Colorectal Cancer Screening for Average-Risk Persons at Age 45 Years Instead of 50 Years

D. J. Ahnen and S. G. Patel

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