Welcome to the May issue of CMGH. It has been an exciting year for the journal. We unveiled the plan for the journal at Digestive Disease Week (DDW) 2014 and began accepting submissions the following month. I am happy to tell you that the response of the gastrointestinal, liver, and pancreatic research communities has been strong and supportive. We take this as evidence that there is a pressing need for a rigorous basic and translational science journal in our field, and review of our first three issues should convince anyone that CMGH is rigorous. I also want to assure all readers and authors that CMGH will be indexed in PubMed and PubMed Central beginning with the very first issue. Our plans are bold for CMGH. Later this year, we will be applying for early indexing in PubMed and PubMed Central. Once CMGH is accepted, the journal will be indexed from the very first issue.

As part of our efforts to support the basic and translational research communities within the AGA, we have compiled the following summaries and meeting guides prepared by the AGA Sections listed below. We hope this will become a regular feature that helps our readers take advantage of the vast array of offerings at DDW. In addition to the terrific programming below, be sure to attend the Section Education and Networking Exchange on Saturday from 5:30-6:30 p.m. It is an opportunity for attendees to meet section leaders, see poster presentation, and volunteer to review abstracts or participate in future sessions at DDW.

Thanks very much to the section chairs and vice chairs as well as the CMGH managing editor, Lindsey Brounstein, for doing the major work in preparing this compilation, and to all of you for your support of the Journal. I hope to see you in Washington, D.C.

Jerrold R Turner, M.D., Ph.D.
Editor-in-Chief, CMGH

DDW 2015 for the AGA Council
The Grossman Lecture
Gastrointestinal Oncology Section
Growth, Development and Child Health Section
Immunology, Microbiology and Inflammatory Bowel Diseases Section
Morton Grossman (1919-1981), the father of modern gastrointestinal endocrine physiology, was truly one of the giants of the last century in gastrointestinal research. Dr. Grossman’s appointment in 1955, as Chief of Gastroenterology at the Wadsworth VA Medical Center in Los Angeles was a major turning point in his career. From 1955 until 1962, he ran the section and trained clinical gastroenterologists, all the while continuing his research. He was one of the first scientists appointed to the newly created Senior Medical Investigator program at the VA and was also Professor of Medicine and Physiology at the UCLA School of Medicine.

In 1973, Dr. Grossman learned that the National Institutes of Health intended to fund a center for the study of peptic ulcer disease. Almost single-handedly, he organized the Wadsworth-UCLA and Dallas GI groups to submit a proposal, which was funded. Thus, in 1974, Dr. Grossman became the first Director of the Center for Ulcer Research and Education (CURE), which served as a prototype for the Digestive Diseases Research Core Center Program at NIDDK.

In his life, Dr. Grossman authored 400 articles. He trained a generation of fellows and scientists from all parts of the world. Many of them went on to successful research careers and to hold positions of distinction as heads of departments of gastroenterology, surgery, and physiology. His major contributions lay in defining the secretory mechanisms of the stomach and pancreas and the actions of regulatory gastrointestinal peptides. Dr. Grossman set uncompromising standards for scientific validity and accuracy of reporting. In 1979, he was presented the Friedenwald Medal from the American Gastroenterological Association in recognition of his accomplishments.

His friends and colleagues will most remember his curiosity, his encyclopedic memory, the breadth of his interests and his energy in pursuing them, his intelligence, his perfectionism, his fairness, his wisdom, his integrity, his devotion, and his kindness.
The Grossman Distinguished Lectureship was established in 1989 to honor the memory and accomplishments of Dr. Grossman. Previous speakers have all been distinguished, world-renowned scientists, including eight Nobel laureates. The 2015 Grossman Lecture will be given by Hans Clevers, President of the Royal Netherlands Academy of Arts and Sciences.

Over the last decade, few scientists have as significant an impact on digestive disease research as Dr. Clevers. Over a decade ago, Dr. Clevers identified a transcription factor TCF1 as a key transcriptional effector protein of the Wnt signaling pathway. His discovery had a major impact in understanding this important pathway in metazoan development. More importantly his findings identified a missing link towards understanding how APC mutations and β-catenin give rise to colorectal cancer.

With the tools he developed for studying Wnt signaling, Dr. Clevers recognized that self-renewing cells at the base of intestinal crypts showed highly active Wnt signaling. This critical observation lead to the discovery of a seven transmembrane domain receptor, LGR5, as both a Wnt target gene and a marker of intestinal stem cells (ISC). Although the existence of a pluripotent intestinal stem had been proposed for decades, it remained elusive for study since there were no known markers.

In a series of classic experiments, Clevers and his colleagues established that LGR5 expressing cells fulfilled the properties of the long postulated self-renewing intestinal stem cell. His discoveries and ongoing work have triggered an avalanche of information from his lab and many others about the ISC as adult stem cell, the biology of the stem cells and their niche, the functional role of LGR5 as an R-spondin receptor, and the ability to propagate stem cells in organoid cultures. As a result of his seminal work, the ability to study stem cells has evolved from experiments that could never be done, to a wellspring of new knowledge that has our advanced understanding of the GI tract.

Gastrointestinal Oncology Section

William M. Grady, MD, AGAF and Rhonda F. Souza, MD, AGAF

Introduction

The Gastrointestinal Oncology section (GIONC) has focuses on research in biomarkers, colon cancer screening, cancer chemoprevention and tumor biology (colorectal cancer, esophageal cancer, pancreatic cancer and gastric cancer). The GIONC section has played a key role in the multi-society ASCO/AGA/SSO/ASTRO GI Cancers Symposium that is held annually in January, where section members are key leaders at this meeting through their roles as members of the program committee, steering committee and invited speakers. Additionally, the strength of the GIONC section comes in its ability to address and highlight broad themes in
oncology that pertain to multiple cancer types, not only those restricted to a single organ site.

Research Fora
GIONC has developed a program for DDW 2015 that covers advances in some of the most dynamic areas of gastrointestinal cancer research. Twelve research fora span basic and translational research on a number of exciting topics.

**Saturday, May 16, 2015:** “Gastric Neoplasms: Precursors, Biology, Diagnosis and Therapy,” “Biomarkers for Detection, Treatment and Prognosis of GI Cancers,” “Therapy for GI Cancers: Translational and Targeted Approaches,” “Tumor Biology and Tumor Microenvironment” “Stem Cell Biology and Cancer” and “Inflammation, Tumor Microenvironment and Pancreatic Carcinogenesis”

**Sunday, May 17, 2015:** “Esophageal Neoplasms: Mechanisms of Carcinogenesis,” “Cancer Susceptibility and Familial Cancer Syndromes” and “Molecular Pathways in Carcinogenesis, Angiogenesis and Metastasis”

**Monday, May 18, 2015:** “Influences of Nutrition and the Microbiome on GI Cancers”

**Tuesday, May 19, 2015:** “Epigenetics and Gastrointestinal Cancer” and “Cancer Prevention and Chemoprevention”

Distinguished Abstract Plenary
Another highlight of DDW 2015 is the GIONC Distinguished Abstract Plenary session being held on **Monday, May 18, 2015**. This session will feature advances in GI Cancer therapies and biomarkers by showcasing some of the best posters submitted to our section this year.

Symposia
The GIONC section will also be hosting several symposia spanning clinical, basic and translational research. The global research symposium, “RAS is Back: Novel Approaches and Insights into RAS and Gastrointestinal Cancer” will be on **Saturday, May 16, 2015**. There will be two translational symposia this year, as well. You won’t want to miss “Microbiome, Metabolites and Cancer” on **Saturday, May 16, 2015**, or “Role of Inflammation in Gastrointestinal Cancer” on **Monday, May 18, 2015**. Finally, our clinical symposium will focus on the crucial debate: “Colonoscopy vs. Stool Testing for Colon Cancer Screening” and will round out the week on **Tuesday, May 19, 2015**.

Growth, Development and Child Health Section
*Alessio Fasano, MD and Noah F. Shroyer, PhD*
**Introduction**
The Growth, Development and Child Health (GDCH) section is the home for pediatrics and developmental biology within the AGA. The membership of GDCH has the most diverse range of digestive health interests within the AGA, representing the interests of pediatrics within all digestive organ systems, as well as basic science related to growth, development, and pediatrics.

GDCH received 129 abstracts for DDW 2015, of which 36 (28%) were accepted for oral presentations and 79 (61%) were accepted as posters. One abstract entitled "Villus morphogenesis re-examined: unique cell division carve out intestinal villi" was selected for oral presentation as part of the AGA Basic Science Plenary. These numbers are quite similar to the overall number of abstracts submitted over the past 5 years. For DDW 2015, GDCH is sponsoring 10 oral sessions and 4 poster sessions.

**Research Fora**
Seven research fora include oral presentations selected from the abstracts:

**Saturday, May 16, 2015:** "The Role of Gut Microbiome in Pediatric GI Diseases". At this session, the GDCH section will also present the section Research Mentor Award to Richard J. Grand, MD.

**Sunday, May 17, 2015:** "Pediatric IBD: Clinical and Translational Studies" and "Molecular Mechanisms and Signaling of GI Growth and Development"

**Monday, May 18, 2015:** "Genetic and Intestinal Disorders", "Pediatric Functional and Motility Disorders", and "Mucosal Growth Factors and Receptors, Intestinal Proliferation, Cell Cycle Regulation and Apoptosis"

**Tuesday, May 19, 2015:** "Challenges and Opportunities in Pediatric Liver Diseases"

**Symposia**
In addition to the abstract-driven research fora, the GDCH section is sponsoring three clinical and translational symposia of invited leaders in their fields:

The translational symposium on **Saturday, May 16, 2015**, on “Gut Microbiome and Clinical Outcomes in Pediatrics” includes "How Gut Microbiome Is Established: Lessons Learned From Premature Infants" (Phillip I. Tar); "Microbiome and Obesity" (Lee M. Kaplan); "Microbiome and Food Allergies" (Richard S. Blumberg); "Microbiome and IBD" (Eric Alm).

Another translational symposium on **Monday, May 18, 2015**, "Celiac Disease - Which Factors Are At Play In Childhood That Can Increase The Risk To Develop The Disease In Adulthood?", includes "How HLA Haplotype Can Influence the Risk of Developing Celiac Disease" (Edwin Liu); "Timing of Gluten Introduction and Risk of
Lastly, the clinical symposium on **Monday, May 18, 2015**, "IBS 21st Century: Time to Switch From Treating Symptoms to Eliminate the Cause?" includes "IBS 101: What Do WE Know, What WE Don't Know, How WE Can Close the Knowledge Gap" (Carlo Di Lorenzo); "Infective and Allergic Causes of IBS" (Craig Friesen); "The Role of Food Intolerances in the Pathogenesis of IBS" (Bruno Champitazi); "The Intestine Under Stress: Neuro-Motor Causes of IBS" (Adrian Miranda).

**Poster sessions**
Finally, GDCH is sponsoring four poster sessions: "Pediatric IBD", "Pediatric Functional and Motility Disorders", "Clinical Pediatric Gastroenterology", and "Pediatric Translational Research."

**Immunology, Microbiology and Inflammatory Bowel Diseases Section**

*Edward V. Loftus, Jr., MD, AGAF and Mark S. Silverberg, MD, PhD*

**Introduction**
Digestive Diseases Week (DDW) continues to be the pre-eminent scientific meeting for the field of inflammatory bowel diseases (IBD). The immunology, microbiology and inflammatory bowel diseases (IMIBD) section is the largest of the AGA Council sections and continues to attract the best scientific work of the year. There are numerous topic descriptors for abstract submission that cover the spectrum of basic and translational science related to IMIBD in addition to clinical science. The section covers important major scientific topics such as: innate and adaptive immunity, genetics and the microbiome, animal models of IBD, mucosal immunology, epithelial cell biology and stem cells. DDW is an outstanding opportunity for scientists to get state of the art knowledge in a specific field of interest in addition to a well-rounded update in the field. For the 2015 meeting there were 1096 abstracts submitted with only 9% selected for oral presentation and about 60% accepted for poster presentation. This was a particularly competitive year with roughly 30% of submitted abstracts rejected. While it is not necessarily ideal to have such a high rejection rate this does result in higher quality presentations at the meeting.

**Research Fora**
Some of the most exciting basic and translational highlights of the IMIBD section’s 17 research fora are included here.

These basic research sessions are a must-see at DDW 2015: On **Saturday, May 16, 2015**, a research forum addressing progress in developing novel therapeutics using
animal models will take place. As the science evolves from IBD gene identification to gene function and biology a research forum on Sunday, May 17, 2015, will include presentations that describe new genetic discoveries as well as some breakthroughs in understanding the function of known IBD gene variants. There will also be a mini state of the art lecture provided to summarize the current and future state of affairs in IBD genetics. Other research fora at DDW will focus on cytokines and receptors, pre and probiotics and stem cell biology.

**Saturday, May 16, 2015:** “Using Animal Models to Develop Novel Therapies,” “IBD: Cytokines, Signaling and Receptors” and “IBD: Innate and Adaptive Immune Function”

**Sunday, May 17, 2015:** “The Microbiome in IBD: Structure and Function” and “Gene Identification and Gene Function in IBD.”

**Monday, May 18, 2015:** “Stem Cell Biology”

**Tuesday, May 19, 2015:** “Prebiotics and Probiotics”

**Distinguished Abstract Plenary**

The IMIBD Distinguished Abstract Plenary session on Monday, May 18, 2015, will contain presentations on a large scale study examining the composition of the fecal microbiome in healthy first degree relatives of Crohn’s disease patients and the role of RAC proteins in intestinal inflammation.

We encourage all members from the scientific community interested in the IMIBD topics to attend DDW this year.

**Intestinal Disorders Section**

*Nicholas O. Davidson, MD, AGAF and Wayne I. Lencer, MD, AGAF*

**Introduction**

The Intestinal Disorders (ID) section is the fourth largest section of AGA Council, receiving 416 abstracts in 2015, of which 53 were accepted for oral presentation (13%) and 258 were accepted for poster presentation (62%). These figures compare favorably with historical trends for 2012-14 (oral, range 13-17%; poster, range 57-63%).

The ID section members’ interests span a range of areas, embracing disease focused (celiac disease, radiation and chemotherapy induced injury) and pathway driven processes (diarrhea and malabsorption, host-microbial interactions, epithelial transport) as well as translational interests including epithelial functions and junctions in wound repair, nutrient and lipid processing and antigen sensing/processing in innate immunity. In addition, the ID section has promoted
interest in the use of isolated enteroids and organoids for the study of intestinal disease, reflecting the emerging interests in stem cell biology.

Research Fora
For DDW 2015, the ID section is sponsoring 8 research fora which are aggregated around abstract submissions reflecting a general theme. Of these 8 research fora, there is an equal distribution of basic and translational content. These include:

Saturday, May 16, 2015: “Intestinal Stem Cells, Developmental Biology and in vivo approaches (organoids/enteroids),” “Microbes, Innate Immunity, Pathogenesis and Inflammation,” and “Injury models/Stem Cells”.

Sunday, May 17, 2015: “Intestinal Disorders: Clinical Mechanisms” and “Inflammation, injury, repair and fibrosis”

Monday, May 18, 2015: “Intestinal physiology, cell biology and barrier function” and “Mechanisms and mediators of diarrhea”

Tuesday, May 19, 2015: “Updates on the diagnosis of Celiac Disease”

Distinguished Abstract Plenary
In addition to these abstract driven Research Fora, there is a Distinguished Abstract Plenary Session (Saturday, May 16, 2015) at which we will present the Research Mentor Award to Jerrold Turner, MD, PhD. The distinguished abstract plenary session reflects a range of high impact abstracts including both basic and clinical.

Symposia
The ID section is also sponsoring a research symposium (Saturday, May 16, 2015) focused on “Next Generation Sequencing: Opportunities for Research and Practice”. This symposium will feature three experts who will discuss findings including “Single Cell PCR Using Fluidigm Technology” (Scott Magness); “Functional Heterogeneity of T-cell Receptors at the Single Cell Level” (Arnold Han); “Next Generation Sequencing in Colorectal Cancer/Polypsis Syndromes” (Ian Tomlinson). This research symposium will allow attendees to gain detailed insight into advances in single cell transcriptomics and to understand how advances in sequencing technology are transforming clinical practice by facilitating subclassification of disease phenotypes.

Finally, the ID section is sponsoring two clinical symposia and one translational symposium.

The translational symposium (Saturday, May 16, 2015) is organized around “Xenobiotics, Microbiota and Intestinal Disease” and features three experts who will discuss findings including, “Gut Reactions: Understanding Drug Metabolism by the Human Microbiota” (Emily Balskus); “Xenobiotics and Intestinal Injury (Axel
“Intestinal Efflux Transporters and Multidrug Resistance in Inflammation” (Elke Cario). This translational symposium will allow attendees to gain perspective into how the microbiota interact with and influence drug metabolism.

The first clinical symposium on Monday, May 18, 2015 is organized around “Radiation Injury, Intestinal Failure and Rehabilitation” and features three experts who will discuss the current state of the art in this difficult management problem. Their topics will include: “Radiation enteropathy: Clinical perspectives for the future” (Jerviose Andreyev); “Intestinal rehabilitation” (Donald F. Kirby); “Managing sepsis and infections in patients with intestinal failure” (Georg Lamprecht). This symposium will provide attendees with perspectives and insights from European and US centers of excellence, including very practical details on preventing and managing important complications and outlining future directions for the field.

The second clinical symposium on Monday, May 18, 2015 is organized around “Celiac Disease: Causes and Dilemmas” and features an international group of experts who will discuss topics including: “Why is celiac disease on the rise and can it be prevented?” (Anneli Iversson); “Suspected celiac disease: How to secure a diagnosis” (Benjamin Lebwohl); “What to do with persistent symptoms and/or partial recovery?” (Joseph A. Murray); “How to diagnose and manage refractory celiac disease?” (Chris J. Mulder). This symposium will provide attendees a granular understanding of the key challenges in the epidemiology, diagnosis and management of celiac disease.

Liver and Biliary Section

Jayant A. Talwalkar, MD, MPH and Kenneth E. Sherman, MD, PhD

Introduction

Liver & Biliary (LB) section membership has seen a slight increase in the past few years. As of May 2014, the section counts 5,038 members, which represents a three percent increase in the membership since 2010. Domestic members comprise 65 percent of the section; international members comprise 18 percent of the base. More than 14 percent of the members are Trainees (domestic and international), which represents one of the highest proportions of Trainee members among all council sections. Nurse Practitioners and Practice Managers comprise just three percent of the membership. Consistent with other sections, the large majority of Liver & Biliary members affiliate with multiple sections; including Clinical Practice; Esophageal, Gastric & Duodenal Disorders; and Intestinal Disorders.

Research Fora

The LB section is sponsoring two research fora which will have oral abstract presentations centered on general themes. These include:

Saturday, May 16, 2015: Metabolic and Genetic Liver Disease
**Tuesday, May 19, 2015:** Liver and Biliary Carcinoma: Management, Etiology, Diagnosis and Natural History

**Poster Sessions**
For DDW 2015, the LB section will offer multiple poster presentation forums for accepted scientific abstracts. The poster sessions will be divided into the following categories:

**Saturday, May 16, 2015:** “Clinical Biliary Tract Disorders, Stone Diseases and Stone Pathogenesis”

**Sunday, May 17, 2015:** “Clinical Hepatitis”

**Monday, May 18, 2015:** “Complications of Cirrhosis and Portal Hypertension”

**Tuesday, May 19, 2015:** “Liver and Biliary Carcinoma,” “Metabolic and Genetic Liver Disease,” and “Pharmacoeconomics and Cost-effectiveness Analysis of Liver Disease”

A jointly sponsored oral presentation session between the LB section and American Association for the Study of Liver Disease (AASLD) will also be held on Tuesday May 19. Abstract presentations will be centered around “Noninvasive Markers of Liver Fibrosis.”

**Symposia**
Three clinical symposia are being sponsored independently or jointly with other AGA Institute sections at DDW in 2015.

The clinical symposium on **Monday, May 18, 2015**, is focused on “Health Economics of Diagnosis and Treatment for Chronic Liver Disease”. Expert speakers will speak about topics including “Pharmacoeconomics of Chronic Viral Hepatitis” (John Wong); “Economic and Resource Utilization with MELD for Liver Transplantation” (Shimul Shah); and “Cost-Effectiveness of Screening and Surveillance for HCC” (Norah Terrault). This symposium will allow attendees to hear about the potential economic benefits and impacts for available and emerging drug therapies.

The Emmett B. Keefe clinical symposium on **Monday, May 18, 2015**, will be organized around the topic of Impact of Long-Term Suppression of Chronic HBV Infection”. Topics include “The Effect of Long-Term Suppression of HBV on Immune Function and Cure” (Shyam Kottilil); “Long-Term Survival and Risk of HCC in HBV Infected Patients Treated with Long-Term Nucleoside/Nucleotide Therapy (Stuart Gordon); and “Cost-Effectiveness of Long-Term Viral Suppression of HBV” (Mark
Eckman). This symposium will deal with an important topic area for the management of patients with chronic hepatitis B infection.

A joint global clinical symposium sponsored by the LB and Clinical Practice sections will be held on **Tuesday, May 19, 2015**, and will focus on the “Implementation of the Affordable Care Act and the Practice of Gastroenterology and Hepatology”. Topics include “Current Concepts in Provider and System-Based Quality of Care Measurement” (Spencer Dorn); “Impact of Health Insurance Coverage from Exchanges on Out-of-Pocket Costs for GI Services (Joel Brill); and “Price Transparency, Narrow Networks and Academic Health Centers” (Mark McClellan). This novel and timely symposium will be of great interest to attendees given the recent changes in health care reform and what effects this will have on the practice of gastroenterology and hepatology.

**State of the Art**

Last but not least, the LB section will once again host the Charles S. Lieber State-of-the-Art Lecture on Sunday May 17. The invited speaker for the Lieber Lecture is Dr. Scott Friedman who will present on “NASH: The Convergence of Inflammation, Fat and Fibrosis and the Path to Treatment”.

**Neurogastroenterology and Motility Section**

*Pankaj J. Pasricha, MD and Satish S.C. Rao, MD, PhD, AGAF*

**Introduction**

There has never been a better time in terms of research and clinical advances in neurogastroenterology and motility (NGM). Often considered a “black box” in our specialty, the last few years have seen a flurry of basic science discoveries, novel therapeutic targets, refinement of diagnostic techniques and several promising new drugs in the pipeline. At this DDW, the NGM section menu reflects this spectrum of innovation and the excitement around it. Notable sessions, amongst many others, include the following:

**Research Fora**

There are many other exciting fora where cutting edge science will be discussed.

**Saturday, May 16, 2015:** “Microbiota, Metabolites and Motility,” “Emerging Paradigms in Pathogenesis of Motility Disorders” and “Neuro-Immune Interactions and ENS Disorders”

**Sunday, May 17, 2015:** “Irritable Bowel Syndrome: From Diagnosis to Treatment,” “Irritable Bowel Syndrome: Advancing Our Understanding” and “Fundamental Advances in Enteric Neurobiology”

**Monday, May 18, 2015:** “Generating and Regenerating the Enteric Nervous System”
**Tuesday, May 19, 2015:** “Neurogastroenterology: Centrifugal/Centripetal” and “Sensory Neurobiology”

**Distinguished Abstract Plenary**
The culmination of these exciting research fora is perhaps in the NGM plenary session on **Monday, May 18, 2015**, where the attendees will be able to listen to first-hand presentations of the best abstracts highlighting the most significant advances from bench to translational to clinical neurogastroenterology and motility. In addition, they will witness the presentation of the Research Mentor Award for 2015 to Michael Camilleri, MD, AGAF.

**Symposia**
In addition to the research fora at DDW 2015, the NGM section is sponsoring research, translational and clinical symposia which feature expert invited speakers.

The research symposium on **Saturday, May 16, 2015**, will be “NGM Cutting-Edge: New Roles for Old Cells.” We are bringing in experts from outside of gastroenterology to learn from them how their groundbreaking research can inform us about possible directions we need to take and where the next generation of discoveries will come from. Thus, Isaac Chiu will talk to us about “How Sensory Neurons Sense Bacteria” and Milena Bogunovic will educate us about “Macrophages and GI Motility.” Finally Kenton Sanders will discuss the emerging story of “Fibroblasts and Gut Motility.”

This year’s translational symposium will be on **Monday, May 18, 2015**, and will focus on “Making Research Work for Patients — What Is in the Pipeline?” Here we will go to the next step in translation- learn about new and emerging diagnostic and therapeutic targets for functional and motility disorders. We will also assess the current state of our knowledge about biomarkers for irritable bowel syndrome and hear about new directions for microbiota manipulation for clinical benefit. Our topics and speakers include: “Purinergic Drugs for Management of GI Disorders” (Fievos L. Christofi); “MicroRNAs, Genomics and IBS: What is the Link and Are We Any Closer to Finding Biomarkers?” (John W. Wiley); “Therapeutic Modulation of Gut Microbiota” (Purna C. Kashyap).

Lastly, our global clinical symposium on **Saturday, May 16, 2015**, will address “Developing Targeted Drug Therapy for GI Disease.” An idea or discovery is only important if it patients can access it, in other words, if it makes it to the market. In this session, the audience will learn about the trials and travails of bringing new drugs and developing new targets for symptomatic relief or cure. We will also listen to the perspective of big Pharma on GI disorders as a therapeutic area and what they perceive as scientific or market barriers to drug development in gastroenterology. This will feature the following talks: “Novel High Throughput Approaches to Development of Anti-Diarrheals” (Alan S. Verkman); “Facilitating Pathways to
Obesity, Metabolism and Nutrition Section

Lee M. Kaplan, MD, PhD, AGAF and Dennis D. Black, MD

Introduction
In recent years, DDW programming by the Obesity, Metabolism and Nutrition (OMN) section has emphasized subject areas that have appealed to a majority of meeting attendees, especially those affiliated not only with the OMN section, but also other sections with which we share common interests, as reflected by our strong participation in cross-sectional programming. A major emphasis on obesity and nutritional and metabolic disorders was solidified by a section name change in 2013 to “Obesity, Metabolism and Nutrition,” reflecting a research and clinical focus on this spectrum of major health problems. New programming has included fora and symposia highlighting related topics, including bariatric surgery and its impact on nutritional status, GI neuroendocrinology and metabolism, new and innovative endoscopic and other treatments of obesity and diabetes, fatty liver disease, GI regulation of energy balance, weight and metabolic function, microbiota and metabolic regulation, and nutrition and metabolism across the life cycle. Nutritional support in all of its forms used in the management of a variety of diseases, including obesity, intestinal failure and inflammatory bowel disease, as well as nutrient absorption and metabolism, have also continued to be the focus of OMN programming. The OMN section has also endeavored to strike a balance between basic research to shed light on disease mechanisms, including pre-clinical studies to develop new therapies, and clinical and translational research to better describe disease phenotypes and test new therapeutic approaches.

In 2015, the OMN section received 139 abstracts in 2014 and 137 in 2015, higher than in previous years. In 2015, 25 were accepted for oral presentations (23%), and 82 were accepted for poster presentations (77%).

Research Fora
For DDW 2015, the OMN section is sponsoring four research fora, each with a focused theme and encompassing basic and translational research. These include:

Saturday, May 16, 2015: “Obesity: Basic and Clinical Studies” and “Neuroendocrine Regulation of Food Intake and Energy Expenditure”

Sunday, May 17, 2015: “Gut Microbiota and Metabolic Regulation”

Tuesday, May 19, 2015: “Vitamin and Nutrient Absorption and Metabolism”
Symposia
In addition to these research fora, the OMN section will be sponsoring four themed symposia. These include:

**Saturday, May 16, 2015:** “Nutrition, Epigenetics and Metabolic Imprinting”. This Research Symposium will feature three experts discussing the role of early environmental and nutritional exposures in epigenetic alteration and metabolic imprinting, which have important implications for obesity and metabolic risk later in life. They include “Early Environmental Influences on Intestinal Developmental Epigenetics” (Lanlan Shen), “Influence of Early Life Nutrition on Future Energy Balance” (Karen Peterson) and “Environmental Exposure and Epigenetics of Metabolic Syndrome” (Ann Scheimann).

“Intestinal and Hepatic Lipid Droplets in Health and Disease”. This Research Symposium will bring together four experts on the biology of enterocyte and hepatocyte cytoplasmic lipid droplets and their roles in lipid storage and trafficking and their potential as therapeutic targets for obesity and NAFLD. These include “Mechanisms of Lipid Synthesis and Storage in Lipid Droplets” (Robert Farese), “Cytoplasmic Lipid Droplet Synthesis and Catabolism in Enterocytes” (Kimberly Buhman), “Control of Lipolysis in Lipid Droplets by Perilipin (Dawn Brasaemle) and “The Lipid Droplet as a Therapeutic Target in NAFLD” (Jurgen Borlak).

“Eating Fat: The Good, the Bad and the Ugly”. This Global Translational Symposium will address the impact of reduction in fat content of the American diet over the past 40 years on the emergence of obesity and metabolic syndrome, as well as effects of dietary lipid on the microbiome, intestinal inflammation and malignancy. Topics include “Why Low-Fat, Low-Calorie Diets Don’t Work” (David Ludwig), “Nutrigenomics, Dietary Fatty Acids and Metabolic Syndrome” (Helen Roche), “Dietary Fat, the Gut Microbiome and Metabolic Risk” (Eugene B. Chang) and “Impact of Dietary Fat on Intestinal Inflammation and Malignancy (R. Balfour Sartor). During this symposium the OMN Section Research Mentor Award will be presented to Samuel Kline, MD.

**Monday, May 18, 2015:** “Molecular Mechanisms of Intestinal Lipid Absorption: Targets for Obesity Therapy”. This Translational Symposium will update attendees on the latest discoveries defining mechanisms of intestinal lipid absorption at the molecular level and potential targets for the treatment of obesity. Topics include “Microsomal Triglyceride Transfer Protein” (M. Mahmood Hussain), “The Pre-Chylomicron Transport Vesicle” (Charles M. Mansbach, II), “DGAT and MGAT in ER Triacylglycerol Synthesis” (Scot Stone) and “CNS Regulation of Intestinal Lipoprotein Production” (Khosrow Adeli).
Poster sessions

Pancreatic Disorders Section
*Matthew J. DiMagno, MD and Santhi S. Vege, MD, AGAF, FACP*

**Introduction**
The Pancreatic Disorders (PAN) Section of the AGA Institute Council has an exciting clinical, translational and basic science program at DDW 2015. Herein we highlight basic and translational sessions that you won’t want to miss.

**Research Fora**
**Saturday, May 16, 2015**: “Pancreatic Cystic Neoplasms and Cancer” examines the diagnostic and prognostic value of biomarkers for pancreatic cancer and emerging epidemiologic and cost data that impacts evaluation and monitoring strategies for branch duct IPMNs.

**Sunday, May 17, 2015**: “Pathobiology of the Pancreas” addresses the intrapancreatic effects of TGF-beta on pain behavior; the relationships among dietary fat, BMI and severity of acute pancreatitis; how a defective unfolded protein response promotes pancreatic cell injury and gland fibrosis; and how pancreatic tumorigenic behavior is fostered by pancreatic stellate cell exosomes and by tumor BclxL expression.

**Symposia**
The PAN section is cosponsoring an exciting research symposium on **Monday, May 18, 2015**: “Irritant Sensing in the Gut: New Pathways to Visceral Pain of Digestive Diseases.”

The clinical symposium on **Saturday, May 16, 2015**, will be on “Clinical Targeting of Stellate Cells and Autophagy in Pancreatic Cancer: Hope for Patients or Potential Disaster?” Experts in the field will focus on evolving clinical treatment targets for pancreatic cancer; and the paradoxical pro- and anti-neoplastic effects of stellate cells and inhibition of autophagy on pancreatic cancer.

On **Saturday, May 16, 2015**, PAN will host a global translational symposium on “Epigenetics: A New Paradigm for Complex GI Diseases,” which will introduce an
exciting new paradigm for understanding, diagnosing and treating complex GI
diseases, including pancreatitis, fibrosis and cancer.

**Sunday, May 17, 2015**, will bring “Are Biomarkers Practical for Early Detection and
Prognosis of Pancreatic Cancer?” Here, experts will review definitions for high risk
groups and early detection methods; screening and genetic testing; molecular
biomarkers for early detection of pancreatic cancer; and current & future options
for preventing pancreas cells with common Kras mutations from progressing to
cancer.

**Other Events**
Beyond the research fora and symposia, there are plenty of other exciting events
happening in the PAN section at DDW 2015.

Highlights of the poster sessions include “Pancreatic Genetics, Epigenetics and
Pathobiology of the Pancreas” and “Pancreatic Cancer Risk Factors, Biomarkers and
Diagnosis” on **Saturday, May 16, 2015**; and “Pancreatitis: Inflammation,
Fibrogenesis and Immunology” on **Tuesday, May 19, 2015**.

On **Sunday, May 17, 2015**, don’t miss the AGA Focused Research Roundtable on
“Insights Into Acinar Cells and Pancreatitis” featuring Dr. Fred Gorelick who will
discuss relevant basic research abstracts submitted to DDW 2015. At noon, join Dr.
Steven Pandol for a DDW Meet the Investigator Luncheon entitled, “Emerging Bench
to Bedside Treatments of Acute Pancreatitis.” In the afternoon attend the AGA/ASGE
Presidential Plenary.

**Monday, May 18, 2015** brings more PAN events. At noon, join Dr. Roger Liddle for
a DDW Meet the Investigator Luncheon entitled, “Neurogenic Inflammation and Pain
in the Pancreas.” Also, attend the Distinguished Abstract Plenary, which features top
abstracts and presenters reporting key transcription factors responsible for
pancreatic regeneration following injury; how pharmacological inhibition of TGF-
beta reverses pancreatic fibrosis; novel imaging techniques to understand
pancreatic microenvironment in PanIN development and gut permeability in
pancreatitis; and the predictive value of K-Ras biomarkers for pancreatic cancer.

Finally, **Tuesday May 19, 2015** brings the “ASGE/AGA Update on Pancreatic Cancer
Screening,” which will review the diagnostic and/or prognostic value of biomarkers
for pancreatic cancer and will highlight other methods for risk-stratifying pancreatic
cancer and cancer precursor lesions.

**Regulatory Peptides, Cell Signaling, and Molecular Biology Section**
*Andrew B. Leiter, MD, PhD and Charalabos Pothoulakis, MD*
Introduction
The AGA council section “Regulatory peptides, cell signaling, and molecular biology” (RPCMB), has broad interests in basic mechanisms underlying digestive diseases and gastrointestinal physiology. From its origins in the study of gastrointestinal hormones, the section’s membership has interests representing many areas of cutting edge science including growth factors and stem cells, cellular differentiation in the GI track, epigenetics, mechanisms of receptor function, luminal chemosensing, intestinal inflammation, and mucosal injury and healing. Given the membership’s strong interest in basic mechanisms, RPCMB has invited outside speakers who are leading scientists in their fields. Our section believes that it is an excellent opportunity to include the latest, highly innovative scientific advances in the program at DDW prior to their incorporation into mainline digestive diseases research. This is clearly reflected in the quality of the speakers and cutting edge research themes sponsored by RPCMB during the DDW every year.

RPCMB will sponsor four invited speakers, three research fora, and four poster sessions as well as cosponsoring the Morton I. Grossman lecture. We have an exciting lineup for DDW 2015.

State of the Art
Leonard Shultz from Jackson labs will be our State of the Art speaker (Saturday, May 16, 2015). Dr. Shultz has pioneered genetically engineered mice that carry humanized immune systems. Generation of mice customized to a specific patient’s immune system may provide avatars for studying immune dysregulation occurring in cancer and autoimmune diseases. The approach may eventually lead to new therapies that are customized to individual patients.

Research Fora
**Saturday, May 16, 2015:** "Receptors and Signaling Pathways- Mechanisms Underlying GI Function"

**Monday, May 18, 2015:** “Molecular Mechanisms Underlying Mucosal Injury and Repair” and “Cell Differentiation and Specialization in the GI Tract”

Distinguished Abstract Plenary
We will hold our section’s Distinguished Abstract Plenary session on **Saturday, May 16, 2015**. Six outstanding abstracts will focus on themes of cell signaling and growth factors. Our brief business meeting afterwards is an excellent opportunity for younger investigators to get involved with planning DDW in the future. We welcome all with an interest in helping plan our section’s program in the future to attend.

Symposia
The RPCMB section is sponsoring three additional invited speaker research symposia entitled "Plasticity of Differentiated GI Cells in Choice of Cell Fate and

The Grossman Lecture
Our section is pleased to cosponsor the Morton I. Grossman Lecture (Sunday, May 17, 2015). This year’s speaker will be Hans Clevers. Dr. Clevers’ pioneering studies have elucidated the mechanisms of Wnt signaling in the GI tract and lead to identification and characterization of intestinal stem cells. The title of his presentation will be “Lgr5 Stem Cells in Gastroenterology.”

We look forward to seeing you at DDW.