Invited Speaker Sessions and Oral Research Abstracts on the Gut Microbiome to be Presented at DDW-2013

Consult the official DDW program for complete information about these and other presentations relevant to the microbiome.

SATURDAY, MAY 18

AGA Research Forum
8:00 AM - 9:30 AM
Room 102AB
ENS DEVELOPMENT, NEUROGENESIS AND REGENERATION (2010)
9:00 Endogenous Microbiota Influence the Postnatal Development of Intestinal Motility
Josh Collins, Rajka Boroevic, Elena F. Verdu, Jan Huizinga, Elyanne M. Ratcliffe

AGA Research Symposium
2:00 PM - 3:30 PM
Room 203C
LUMINAL REGULATORS OF WEIGHT AND METABOLIC FUNCTION (2090)
3:00 Microbiota
Anita Wichmann

AGA Translational Symposium
2:00 PM - 3:30 PM
Room 102AB
THE INTESTINAL MICROBIOME AND THE GUTBRAIN AXIS (2105)
2:00 Overview of the Intestinal Microbiome - Concepts, Measures and Techniques for Evaluation
James Versalovic
2:22 How the Microbiota Can Affect Intestinal Function
Giovanni Barbara
2:44 How the Microbiota Can Impact Brain Function and Behavior
Premysl Bercik
3:06 Targeting the Microbiome in the Treatment of GI Disorders
Yehuda Ringel

AGA Research Forum
2:00 PM - 3:30 PM
Room 104B
CANCER PREVENTION AND CHEMOPREVENTION (2125)
2:15 Vitamin D Receptor Inactivation Alters the #79 Colonic Microbiome and Increases Secondary Bile Acids and Colonic Tumorigenesis
Urszula Dougherty, Reba Mustafi, Yunwei Wang, Mark W. Musch, Anuradha Nadimpalli, John Hart, Vani J. Konda, Joel Pekow, Lee Hagey, Phillip Hylemon, Loren J. Joseph, Eugene B. Chang, Yan Chun Li, Marc Bissonnette

AGA Research Forum
4:00 PM - 5:30 PM
Room 104B
PEDIATRIC GASTROENTEROLOGY: MICROBIOTA, PROBIOTICS, AND PREBIOTICS (2255)
4:00 Lactobacillus reuteri DSM 17938 Inversely Changes the Effector and Regulatory T Cell Populations in a Mouse Model of Necrotizing Enterocolitis
Yuying Liu, Dat Q. Tran, Nicole Y. Fatheree, Jon M. Rhoads
4:18 Helicobacter Infection Is the Major Determinant of Aging in the Gastric Mucosa
Robert M. Genta, Richard H. Lash, Byron L. Cryer, Amnon Sonnenberg
4:36 Probiotic Conditioned Media Protect Cronobacter sakazakii Induced Intestinal Inflammation in Newborn Mice
Meiqian Weng, Kriston A. Ganguli, Hai Ning Shi, Allan Walker
4:54 Impact of Perinatal Exposure to Low Doses of Chlorpyrifos on Microbiota in Rats
AGA Distinguished Abstract Plenary
4:00 PM - 5:30 PM
Room 102AB

NEUROGASTROENTEROLOGY & MOTILITY DISTINGUISHED ABSTRACT PLENARY AND BUSINESS MEETING (2235)
4:57 Fodmap Diet Modulates Visceral Nociception by Changing Gut Microbiota and Intestinal Inflammation
Shi-Yi Zhou, Pornchai Leelasinjaroen, Xiaoyin Wu, Hui Zhou, Yuanxu Lu, Il Song, Chung Owyang

SUNDAY, MAY 19

AGA Research Forum
8:00 AM - 9:30 AM
Room 207

MICROBIOME IN INFLAMMATORY BOWEL DISEASE (3160)
8:00 Specific Crohn’s Disease (CD) Associated Risk Alleles Are Associated with the Composition of the Intestinal Microbiota in Healthy First Degree Relatives (FDR) of CD Subjects
8:15 Siblings of Patients With Crohn’s Disease Have a Distinct Microbiological and Immune Phenotype Compared to Healthy Controls: Insights Into Disease Pathogenesis
Charlotte Hedin, Neil E. McCarthy, Petra Louis, Freda Farquharson, Sara McCartney, Kirstin Taylor, Natalie J. Prescott, Trevor Murrells, Andrew J. Stagg, Kevin Whelan, James O. Lindsay
8:30 Chronic Immune-Mediated Colitis Is Associated with a Significantly Altered Luminal Microbial Metatranscriptome
Jonathan J. Hansen, Ting-Jia Fan, Jeremiah J. Faith, Ryan B. Sartor
8:45 Impact of NOD2 on Intestinal Microbiota and Mucosal Homeostasis: Respective Roles of Epithelial and Immune Cells
Ziad Alnabhani, Jean-Pierre Hugot, Nicolas Montcuquet, Karine Le Roux, Pascal Mauny, Maryline Roy, Monique Dussailliant, Nadine Cerf-Bensussan, Patricia Lepage, Frédéric Barreau
9:00 Characterization of the Tissue-Associated Microbiome in Active and Inactive IBD
Andrea D. Tyler, Joanne M. Stempp, Dirk Gevers, Curtis Huttenhower, Mark S. Silverberg
9:15 Bacteroides thetaiotaomicron and Faecalibacterium prausnitzii Shape the Mucus Production and Mucin O-Glycosylation in Colon Epithelium
Muriel Thomas, Laura Wzosek, Sylvie Miquel, Marie-Louise Noordine, Stephan Bouet, Marie Jonquiel Chevalier-Curt, Veronique Robert, Catherine Philippe, Chantal Broidonneau, Claire Cherbuy, Catherine Robbe-Masselot, Philippe Langella

AGA Research Forum
8:00 AM - 9:30 AM
Room 314A

MOLECULAR AND GENETIC BASIS FOR CLINICAL INTESTINAL DISORDERS (3165)
8:30 The First Large Scale Deep Sequencing of the Duodenal Microbiome in Irritable Bowel Syndrome Reveals Striking Differences Compared to Healthy Controls
Mark Pimentel, Vincent Funari, Evangelos J. Giamarellos-Bourboulis, Emmanouil Pyleris, Katerina Pistiki, Jie Tang, Clarence Lee, Timothy Harkins, Gene Kim, Stacy Weitsman, Gillian M. Barlow, Christopher Chang
9:00 Implications of Faecal Microbiota Alterations in Bile Acids Metabolism in Irritable Bowel Syndrome
Dior Marie, Heloise Delageverie, Henri Duboc, Pauline Jouel, Benoît Coffin, Loïc Brot, Lydia Humbert, Germain Trugnan, Philippe Seksik, Harry Sokol, Dominique Rainteau, Jean-Marc Sabate

AASLD Clinical Symposium
8:00 AM - 9:30 AM
Room 202AB

LIVER MANIFESTATIONS OF INTESTINAL DISEASE IN CHILDREN (WITH NASPGHAN) (3085)
8:05 Intestinal Microbiota and Its Relation to Hepatic Disorders
Eytan Wine

AASLD Plenary Session
8:00 AM - 9:30 AM
Room 202C

AASLD PLENARY - TRANSLATIONAL (3115)
9:00 Concanavalin A-Induced Hepatitis in Mice Is Prevented by Depletion of Gut Bacteria Using Antibiotics
Beth Mallard*, Leo R. Quinlan, Ayako Mabuchi, Antony Wheatley
AGA Research Symposium
8:00 AM - 9:30 AM
Room 109A
AGA ROME FOUNDATION - AGA INSTITUTE LECTURESHP: THE ROLE OF FOOD SENSITIVITIES AND MICROBIOTA IN FUNCTIONAL GI DISORDERS (3117)

8:00 Understanding the Mechanisms Underlying the Interaction of Food and Gut Microbia in FGIDs
Kevin Whelan

AGA Research Forum
10:00 AM - 11:30 AM
Room 207
MICROBIAL-INDUCED MUCOSAL INFLAMMATION (3275)

10:00 Five Specific Amino Acids in Chitin-Binding Modules of Potentially Pathogenic Escherichia coli Chitinases Mediate Excessive Host-Microbial Interactions With N-Glycosylated CHI3L1 Under Inflammatory Conditions
Daren Low, Hoa Tran, In-Ah Lee, Nicolas Dreux, Hans-Christian Reinecker, Arlette Darfeuille-Michaud, Nicolas Barnich, Emiko Mizoguchi

10:15 Association of Intestinal and Systemic Inflammatory Responses with Microbial Bile Acid Deconjugation and Hydrogen Sulfide Production in High Fat-Fed Mice
Franck Carbonero, Wan Shen, Zhanxiang Zhou, Michael McIntosh, H. Rex Gaskins

10:30 Biofilm Formation by Crohn Disease-Associated Adherent-Invasive E. coli Involved WaaWVL Expression and LPS Biosynthesis
Benoit Chassaing, Richard Bonnet, Arlette Darfeuille-Michaud

10:45 Induction of Bacterial Antigen-Specific Colitis by a Simplified Human Microbiota Consortium in Gnotobiotic IL-10-/- Mice
Chang Soo Eun, Yoshiyuki Mishima, Bo Liu, Ryan B. Sartor

11:00 Acid-Tolerance Genes Gadab in Commensal Escherichia coli Impair Luminal Bacterial Growth, Alter Bacteria-Epithelial Cell Interactions and Attenuate Experimental Colitis
Sandrine Y. Tchaptchet, Ting-Jia Fan, Laura E. Goeser, Alexi A. Schoenborn, Ajay S. Gulati, Ryan B. Sartor, Jonathan J. Hansen

11:15 Iron Supplemented Diet Protects Against Chronic Immune Mediated Colitis in IL-10 Deficient Mice
Melissa Ellermann, Nilsan Maharshak, Raad Gharaibeh, Wei Sha, Ernesto Perez-Chanona, Kristi J. Whitehead, Christian Jobin, Anthony Fodor, Scott E. Plevy, Ryan B. Sartor

AGA Clinical Symposium
10:00 AM - 11:30 AM
Room 304GH
THE MICROBIOME: DIET, AND DISEASE (3230)

10:00 Diet, Metabolism, and the Gut Microbiome
Gary D. Wu

10:45 Contributions of the Microbiome to Food Allergy
Cathryn R. Nagler

AASLD Research Forum
2:00 PM - 3:30 PM
Room 203C
COMPLICATIONS OF CIRRHOSIS (3520)

2:45 The Triangular Relationship Between Leaky-Gut, Microbiota and Spontaneous Bacterial Peritonitis in Liver Cirrhotic Patients
Francesca Romana Ponziani, Emidio Scarpellini, Annalisa Tortora, Maurizio Gabrielli, Maria Elena Ainora, Giovanni B. Gasbarrini, Venanzio Valenza, Clara Balsano, Antonio Gasbarrini

AGA Clinical Symposium
2:00 PM - 3:30 PM
Room 109A
BEYOND THE MICROBIOME: WORMS, VIRUSES, AND FUNGI IN IBD (3460)

2:00 Enteric Viruses: Can These Be Causing IBD?
Thaddeus S. Stappenbeck

2:30 Worm Therapy in IBD: the Science and the Fiction
David E. Elliott

3:00 Fungal Colonization in the Human and Murine Gut
David Underhill

AGA Plenary Session
2:00 PM - 4:00 PM
Room 307ABC
BASIC SCIENCE PLENARY (3568)

3:21 Crohn's Disease-Associated Adherent-Invasive Escherichia coli Suppress Autophagy Response to Replicate Intracellularly by Regulating Host MicroRNA Expression
Hang T. Nguyen, Guillaume Dalmasso, Frank Seibold, Stefan Müller, Arlette Darfeuille-Michaud
3:33 Human Gut Microbiota Modulates Gut Serotonergic Pathway and Motility
Purna C. Kashyap, Christopher S. Reigstad, Angela Marcobal, Muriel H. Larauche, Steven Higginbottom, Yvette Tache, David R. Linden, Gianrico Farrugia, Justin Sonnenburg

AGA Research Forum
4:00 PM - 5:30 PM
Room 104B
MICROFLORA-ENS INTERACTIONS (3665)
4:00 Learning or Memory Is Impaired by Live but Not Killed Sulfate-Reducing Bacteria
Prashanth Setty, Nathe L. Ritz, Larry L. Barton, Henry C. Lin
4:15 Molecular Characterization of the Intestinal Microbiota in Patients With and Without Abdominal Bloating
Yehuda Ringel, Andrew K. Benson, Ian M. Carroll, Jaehyoung Kim, Nitsan Maharshak, Ryan Legge, Tamar Ringel-Kulka
4:30 Individualized Responses of Gut Microbiota to Dietary Intervention Modeled in Humanized Mice
Purna C. Kashyap, Angela Marcobal, Steven Higginbottom, Samuel A. Smits, Justin Sonnenburg
4:45 Intestinal Mucus Alterations Induced by Chronic Stress Are Linked to Changes in Mucin O-Glycan Structure Rather than MUC2 Expression: Prevention by a Probiotic Treatment
Stéphanie Da Silva, Alessandro Mancuso, Myriam Mercade-Loubière, Christel Cartier, Marion Gillet, Alfa Ait-Belgnaoui, Pascal Loubière, Catherine Robbe-Masselot, Vassilia Theodorou, Muriel Mercier-Bonin
5:00 Role of Human Enteroglial Cells in Mediating Pathogenic and Probiotic Bacteria Effects on Intestinal Epithelial Cells
Ilaria Palumbo, Fabio Turco, Francesco Paolo Zito, Marcella Pesce, Giovanni Sarneil, Rosario Cuomo

MONDAY, MAY 20

AGA Clinical Symposium
8:00 AM - 9:30 AM
Room 102AB
MECHANISMS AND TREATMENTS FOR RADIATION ENTEROPATHY: PAST, PRESENT, AND FUTURE (4105)
9:06 Potential of Probiotics as Therapy for Radiation Enteropathy
Matthew A. Ciorba

AGA Research Forum
8:00 AM - 9:30 AM
Room 104A
INNATE IMMUNE PATHWAYS IN REGULATION AND PREVENTION OF ENTERIC INFECTIONS (4165)
8:00 Induction of Gastrointestinal Anti-HIV Immune Response via Dec-205 Targeted Intranasal Vaccination
Jordan Poles, Darren Ruane, Lucas Brane, Saurabh Mehandru
8:15 A Novel Approach to Understanding Viral Pathogenesis: Defining in-Vivo Rotavirus Infection of Intestinal Enterocytes At the Single Cell Level by Comparing Infected Cells, Bystanders, and Uninfected Cells
Michael E. Rothenberg, Adrish Sen, Gourab, Mukherjee, Ningguo Feng, Tomer Kalisky, Nitya Nair, Iain M. Johnstone, Michael F. Clarke, Harry B. Greenberg
8:30 Early Exposure to Airborne Particulate Matter Alters Intestinal Immune Function and Bacterial Handling in IL-10 Deficient Mice
Saad Y. Salim, Gilaad G. Kaplan, Herman, Barkema, Eytan Wine, Karen Madsen
8:45 Loss of PTPN22 Regulates MDP Induced Signaling, Cytokine Release, Autophagy and Inflammmasome Activation
Marianne R. Spalinger, Silvia Lang, Michael Fried, Gerhard Rogler, Michael Schaar
9:00 Effect of Helminth Protein Therapy in a Chronic Colitis Transfer Model: Preventive and Curative Treatments
Marthe Heylen, Nathalie E. Ruysers, Joris G. De Man, Paul A. Pelkmans, Benedicte Y. De Winter, Tom G. Moreels
9:15 Inhibition of the Nucleotide Synthesis Enzyme, CAD, Enhances NOD2 Anti-Bacterial Function in Human Macrophages and Protects Mice From Colitis
Chaorui Tian, Amrita Kabi, Kourtney P.Nickerson, Craig R. Homer, Sean Kessler, Christine McDonald

AGA Clinical Symposium
2:00 PM - 3:30 PM
Room 304GH
FECAL TRANSPLANTATION FOR C. DIFFICILE DISEASE: IS IT READY FOR PRIME TIME? (4510)
2:00 Why Could Fecal Transplantation Be Effective?
Alex Khoruts
2:30 Fecal Transplantation for Relapsing C. difficile
Colleen Kelly
3:00 Long Term Outcomes After Fecal Transplantation
Lawrence J. Brandt

AGA Research Symposium
2:00 PM - 3:30 PM
Room 304EF
COLON CANCER RISK: IMPACT OF DIET, THE MICROBIOTA AND THE METABOLOME (4550)
2:00 Does Diet Account for Geographical Variation in Colon Cancer Risk?
Stephen J. O'Keefe
2:30 Are Variations in the Microbiota Associated with Colon Cancer Risk?
Erwin G. Zoetendal

3:00 Are Variations in the Metabolome Associated with Colon Cancer Risk?
James Kinross

AGA Research Forum
2:00 PM - 3:30 PM
Room 307ABC
MUCOSAL IMMUNE REGULATION IN ANIMAL MODELS OF INTESTINAL INFLAMMATION (4595)
3:15 Alteration of the Gut Microbiome in NHE3-Deficient Mice

AGA Clinical Symposium
4:00 PM - 5:30 PM
Room 310
UNRAVELING FUNCTIONAL GI DISORDERS IN CHILDREN (4652)
4:22 Is It the Bugs? Microbes, Prebiotics, Probiotics and Antibiotics
Stefano Guandalini

AGA Translational Symposium
8:00 AM - 9:30 AM
Room 206AB
THE LIVER-GUT AXIS (5105)
8:00 Gut Microbiota, Diet and Liver Injury
Craig J. McClain
8:22 The Gut-Liver Axis in Nonalcoholic Fatty Liver Disease
William F. Balistreri
8:44 Role of Intestinal Permeability in the Pathogenesis of Nonalcoholic Fatty Liver Disease (NAFLD)
Luca Miele
9:06 Probiotics As an Emerging Therapeutic Strategy to Treat Pediatric Obesity-Related Nonalcoholic Fatty Liver Disease
Pietro Vajro

AGA Clinical Symposium
8:00 AM - 9:30 AM
Room 101
BLOATING AND ABDOMINAL DISTENSION (5080)
9:00 What Is the Role of Gut Microbiota?
Yehuda Ringel

AGA Clinical Symposium
8:00 AM - 9:30 AM
Room 304CD
ARE WE READY TO PREVENT CELIAC DISEASE? (5075)
9:06 Do Probiotics Have a Future in Celiac Disease Prevention?
Yolanda Sanz

AGA Research Forum
8:00 AM - 9:30 AM
Room 104A
MICROBIAL-EPITHELIAL MICROENVIRONMENT (5140)
8:00 Intraluminal Release of Galectin 4 in EHEC Infection Provides a Novel Host Defense Mechanism
Julie In, Sabine André, Hans-Joachim Gabius, Olga Kovbasnjuk
8:15 Biological Oximetry Using Phosphorescence Quenching Reveals a Dynamic Oxygen Equilibrium Maintained Between the Gut Microbiota and the Host
8:30 NHE2– Mice Have Altered Intestinal Microbiota and Epithelia Oligosaccharide Patterns
Melinda A. Engevik, Gary Shull, Roger T. Worrell
8:45 Defective NON2-Induced Bactericidal Activity Exacerbates Campylobacter Jejuni-Induced Colitis in Il10⁻/⁻ Mice
Xiaolun Sun, Christian Jobin
9:00 NHE8 Participates Intestinal Mucosal Protection Against Bacterial Infection
Chang Liu, Hua Xu, Jing Li, Fayez K. Ghishan
9:15 EPEC NleH1 and NleH2 Protect Against Host Inflammation and Improve DSS-Induced Colitis and Survival in Mice
Mai T. Nguyen, Ki-Jong Rhee, Gail A. Hecht
DDW Meet-the-Professor Luncheon (fee applies)
12:30 PM - 1:45 PM
Orange County Convention Center
Room 313
Probiotics in Children: When and How (M41)
Robert Shulman, Bruno P. Chumpitazi

AGA Research Forum
2:00 PM - 3:30 PM
Room 205A
NOVEL THERAPIES FOR INFECTIOUS DIARRHEA (5490)
2:00 Manganese Treatment of E. Coli Shiga Toxin-1 Induced Intestinal Sequelae and Mortality in Mice
Abigail R. Painley, William M. Rivers, Annette Wilson, Adam D. Linstedt, David G. Binion, Anthony J. Bauer
2:15 Photodynamic Antimicrobial Chemotherapy (PACT) Selectively Kills Clostridium difficile Over Colon Cells and Is Effective Against 5 Hypervirulent Strains of the Pathogen
Mohammed A. Butt, Luisa De Sordi, Gokhan Yahioglu, Sinan Battah, Charles A. Mosse, Ioanna Stamati, Mahendra Deonarain, Peter Mullany, Elaine Allan, Laurence Lovat
2:30 Recurrent Clostridium difficile Infection: a Longitudinal Study of Alterations in Fecal Microbiome in Patients-Donor Pairs Before and After Fecal Microbiota Therapy
Shashank Garg, W. F. Fricke, Mohit Girotra, Anand Dutta, Erik C. von Rosenvinge, Sudhir Dutta
2:45 Long-Term Follow-up Study of Fecal Microbiota Transplantation (FMT) for Severe or Complicated Clostridium difficile Infection (CDI)
Olga C. Aroniadis, Lawrence J. Brandt, Adam Greenberg, Thomas J. Borody, Colleen Kelly, Mark Mellow, Christina Surawicz, Leslie A. Cagle, Leila Neshatian
3:00 In Vitro and In Vivo Characterization of Neutralizing Monoclonal Antibodies Against Clostridium difficile Toxins A and B
Dominiek Staelens, Marlies Van de Wouwer, Els Brouwers, Silvia Caluwaerts, Borden Lacy, Pieter Rottiers, Peter Vanhoenacker, Nick Geuken, Paul J. Declerck, Severine Vermeire, Paul J. Rutgeerts, Gert A. Van Assche
3:15 Elucidating Intestinal Microbiota Components That Play a Protective or Deleterious Role During Clostridium difficile Infections
Louis P. Schenck, Simon A. Hirota, Glen D. Armstrong, Justin A. MacDonald, Paul L. Beck