2022 DIRECTORS MEETING

The Silvio O. Conte Digestive Disease Research Core Centers, NIDDK

October 13-14, 2022

Charleston Harbor Resort & Marina Charleston, SC



Digestive Disease Research Center

T THE MEDICAL UNIVERSITY OF SOUTH CAROLINA



DDRCC DIRECTORS MEETING AGENDA

DAY 1	Wednesday, October 12
Evening	Arrival, transportation to hotels
5:30 <i>-</i> 7:30 pm	Dinner and Meeting Registration Sunrise Terrace, Harborside
DAY 2	Thursday, October 13
7:30 – 8:25 am:	Breakfast and Meeting Registration ♀ Yacht Club & Bridge Bar
SESSION I:	NIDDK PRESENTATION and CENTER COLLABORATION Vacht Club
8:25 - 8:30 am:	Welcome: Don Rockey, M.D., Director, MUSC DDRCC Steve Duncan, Ph.D., co-Director, MUSC DDRCC
	NIH/NIDDK Session - Moderator: Don Rockey, M.D.
8:30 - 9:00 am:	Griffin Rodgers, M.D., Ph.D., Director, NIDDK - NIDDK Update
9:00 - 9:30 am:	Peter Perrin, Ph.D., Program Director, DDRCC, NIDDK - DDRCC Update
9:30 - 10:00 am:	Ross D. Shonat, Ph.D., Director Division of Physiological and Pathological Sciences, CSR - The Current Emphasis on "Transformative Research" in Peer Review
10:00 - 10:30 am:	Q & A, Panel Discussion
10:30 - 10:45 am:	BREAK
	Center Collaboration Session - Moderator: Steve Duncan, Ph.D.
10:45 – 11:50 am:	 DDRCC Core Overview: Nick Davidson (Wash U) - Midwest Don Rockey (MUSC) - Eastern Bernd Schnabl (UCSD) - Western/California
11:15 – 11:45 am:	 Opportunities for Inter-Center Collaboration: Fabio Cominelli M.D., Ph.D., Center Director, Case Western Reserve University - Unique Mouse Models of Gut Inflammation Alex Soto-Gutierrez, M.D., Ph.D., Core Director, University of Pittsburgh (PLRC) - Human Synthetic Liver Biology Core

11:45 – 12:00 pm:	Discussion
12:00 - 1:00 pm:	Lunch and Posters Yacht Club & Bridge Bar
SESSION II	SCIENCE FROM THE DDRCCs
	Scientific Session I (oral presentations chosen from abstracts) - Moderator: Steve Duncan, Ph.D. <i>Yacht Club</i>
1:00 – 1:25 pm:	Makiko Iwafuchi, Ph.D., Assistant Professor, Cincinnati Children's Hospital Medical Center - Pioneer and PRDM Transcription Factors Coordinate Epigenetic States to Safeguard Endoderm Cell Fate
1:25 – 1:50 pm:	Kathleen Del Giorno, Ph.D., Assistant Professor, Vanderbilt University Medical Center - Tuft Cells Inhibit Pancreatic Injury through IL-25 Synthesis and Secretion
1:50 – 2:15 pm:	Benjamin Shogan, M.D. , Assistant Professor., University of Chicago - <i>Development of</i> <i>Postoperative Local Tumors and Distant Metastases is Diet, Genetics, and Microbiome-Dependent</i> <i>in a Mouse Model of Colorectal Cancer Recurrence</i>
2:15 – 3:30 pm:	BREAK AND POSTER SESSION <i>Pridge Bar*</i>
	Scientific Session II (oral presentations chosen from abstracts) - Moderator: Don Rockey, M.D. <i>Yacht Club*</i>
3:30 – 3:55 pm:	Antonis Kourtidis, Ph.D., Associate Professor, Medical University of South Carolina - Colon Cell Mechanoregulation through an Adherens Junction - Associated RNAi Machinery
3:55 – 4:20 pm:	Michael Grey, Ph.D., Assistant Professor, Harvard Digestive Disease Center - The Epithelial ER Stress Sensor ERN2/IRE1b Enables Host-Microbiota Crosstalk to Affect Colon Goblet Cell Development
4:20 – 4:45 pm:	Marlies Meisel, Ph.D., Assistant Professor, University of Pittsburgh (PLRC) - <i>Tet2 Deficiency</i> Drives Liver Microbiome Dysbiosis Triggering Tc1 Cell Autoimmune Hepatitis
	*Lookout Pavilion alternate location in case of rain
1:00 - 4:00 pm:	CONCURRENT CENTER ADMINISTRATORS SESSION ? Palmetto Board Room
	EVENING SESSION & DINNER ? Palmetto Board Room
5:00 - 6:00 pm:	Cocktail Reception
6:00 – 7:30 pm:	Dinner
6:30 – 7:00 pm:	Keynote Address: Anand Mehta, Ph.D., Professor of Cell and Molecular Pharmacology and Experimental Therapeutics (MUSC) - <i>High Resolution Multi-Modal Spatial Imaging of Liver Disease</i>
7:30 pm:	Close

DAY 3

7:30 – 8:30 am:	 Breakfast Yacht Club & Bridge Bar
8:30 - 9:00 am:	Director's Business Meeting
SESSION III:	INVIGORATING, DIVERSIFYING, AND BROADENING DDRCCs Moderator: Don Rockey, M.D.
9:15 - 9:45 am:	Katrina Serrano, Ph.D., Program Director - Office of Minority Health Research Coordination (NIDDK) Diversity, Equity, and Inclusion – Opportunities for NIDDK DDRCCs
9:45 - 10:15 am:	Byron Cryer, M.D. , Ralph Tompsett Endowed Chair in Medicine, Baylor University Medical Center NIDDK Partnerships with Professional Societies to Enhance Scientific Workforce Diversity and promote scientific leadership
10:15 - 10:30 am:	Q & A, Panel Discussion
10:30 - 10:45 am:	BREAK
	Moderator: Steve Duncan, Ph.D.
10:45 - 11:00 am:	Fabio Cominelli, M.D., Ph.D., Center Director (Case Western) - <i>GI and the LGBTQ</i> <i>Community</i>
11:00 – 11:15 am:	Rick Peek, M.D. , Center Director (Vanderbilt) - Vanderbilt DDRCC and Meharry Medical College Collaboration
11:15 – 11:40 am:	Jose Saenz, M.D., Ph.D., Assistant Professor of Medicine (Wash U) - <i>Insights into the Cell and</i> <i>Molecular Pathogenesis of Helicobacter Pylori</i>
11:40 – 12:05 pm:	Adebowale (Wale) O. Bamidele, Ph.D., Assistant Professor of Medicine (Mayo) - Cytokine- Induced Metabolic Dysfunction Governs Regulatory T Cell Inflammatory Response
12:05 – 12:30 pm:	Cristina Llorente , Ph.D. , Assistant Professor of Medicine (UCSD) - <i>IL6ST-induced Muscarinic</i> Receptor Opens Goblet Cell Associated Antigen Passages to Suppress Alcoholic Liver Disease
12:30 pm:	Meeting Adjourns
	Lunch available (lunch ticket required) Vacht Club & Bridge Bar

DDRCC DIRECTORS MEETING ATTENDEES October 13 - 14, 2022

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JUNIOR INVESTIGATOR ABSTRACTS

Name	Abstract Title
Jessica Allegretti	The ICON Study: Inflammatory Bowel Disease and Recurrent Clostridium difficile Infection: Outcomes after Fecal Microbiota Transplantation
Adebowale Bamidele	Cytokine-induced metabolic dysfunction governs regulatory T cell inflammatory response during intestinal inflammation
Juliane Beier	The environmental chemical vinyl chloride accelerates hepatocarcinogenesis
Nicole Belle	T cell intrinsic LINGO2 expression regulates IFN gamma dependent susceptibility to GI nematode infection
Amanda Clark	Extracellular vesicles regulate metastatic tumor cell fate in the liver
Giuseppe Cullaro	Outpatient mean arterial blood pressure: defining the target for a potentially modifiable risk factor for incident acute kidney injury
Kathleen DelGiorno	Tuft cells inhibit pancreatic injury through IL-25 synthesis and secretion
Luca Di Martino	A novel probiotic combination ameliorates experimental Crohn's disease-like ileitis by correcting intestinal dysbiosis
Amy Engevik	Myosin 5b traffics P-glycoprotein to the apical membrane of intestinal epithelial cells
Mindy Engevik	Klebsiella pneumoniae acts synergistically with Clostridioides difficile during infection
Romina Fiorotto	Prominent role of gut dysbiosis in the pathogenesis of cystic fibrosis related cholangiopathy
Joel Gabre	Patient-derived organoids as a foundation to identify tumor specific mechanisms of chemotherapy resistance in esophageal adenocarcinoma
Michael Grey	The epithelial ER stress sensor ERN2/IRE1b enables host-microbiota crosstalk to affect colon goblet cell development
Jessica Hartman	Consequences of CYP2E1 subcellular targeting in nonalcoholic fatty liver disease
Moira Hilscher	HIF1 -dependent liver sinusoidal endothelial cell zonation in congestive hepatopathy drives immune cell recruitment and patterning
Makiko lwafuchi	Pioneer and PRDM transcription factors coordinate epigenetic states to safeguard endoderm cell fate
Ramon Jin	The role of Sox2 in Barrett's esophagus development
Aly Khan	Modeling inflammation across the intestinal wall using spatial transcriptomics
Antonis Kourtidis	Colon cell mechanoregulation through an adherens junction - associated RNAi machinery

JUNIOR INVESTIGATOR ABSTRACTS

Name	Abstract Title
Devesha Kulkarni	Role of obesity-associated gut microbial dysbiosis on intestinal and adipose tissue inflammation
Mengfei Liu	Super-enhancer regulation of cytokine-induced chemokine production in alcoholic hepatitis
Cristina Llorente	IL6ST-induced muscarinic receptor opens goblet cell associated antigen passages to suppress alcoholic liver disease
Matthew McConnell	Galectin-3 binding protein is upregulated in platelets in alcohol-associated cirrhosis with portal hypertension and mediates inflammatory changes in liver sinusoidal endothelial cells
Marlies Meisel	Tet2 deficiency drives liver microbiome dysbiosis triggering Tc1 cell autoimmune hepatitis
Eric Meissner	Manipulating the antiviral phenotype of interferon-lambda treated cells by modulating expression of IFNLR1 isoforms
Jorge Munera	Human pluripotent stem cell derived organoids reveal a role for Wnt signaling in dorsal-ventral patterning of the hindgut
Amar Nijagal	A novel mouse model of hepatoblastoma results is an influx of regulatory T cells
Chad Novince	Antibiotic disruption of the intestinal FXR-FGF15 axis dysregulates adiposity and skeletal maturation in mice
Jatin Roper	Treatment of cystic fibrosis with in vivo base editing
Brigida Rusconi	Protective maternal anti-commensal immunoglobulin G originates in early life
Shailja Shah	Chronic atrophic gastritis and risk of incident gastric cancer in a high-risk population
Ben Shogan	Development of postoperative local tumors and distant metastases is diet, genetics, and microbiome- dependent in a mouse model of colorectal cancer recurrence
Mimi Tan	Optimizing an artificial intelligence algorithm for microendoscopic imaging by integrating patient- level risk factors for esophageal squamous cell neoplasia detection
Ty Troutman	Transcriptional regulation of Kupffer cells during acute and chronic inflammation
Xiao Zhao	A CRISPR-screen in biliatresone-treated human cholangiocytes identifies HMMR as a modulator for biliary injury
Wenhan Zhu	Bacterial toxin reshapes epithelial cell metabolism to promote carcinogenesis in the gut
Amanda Ziegler	A rescuable age-dependent defect in neonatal intestinal barrier repair is associated with an immature enteric glial network