

## Highlights from the 2022 Annual Scientific Symposium



Presentation Winners from Left to Right: Milad Rezvani, MD, PhD  
Maggie Peddicord, Daniel Kechele, PhD, and Surya Amarachintha, PhD

## IN THIS ISSUE:

- Annual Scientific Symposium
- New Equipment at Confocal Core
- DHC Member's research featured on Journal Cover
- Frontiers in Organoid Medicine Symposium Announcement
- Alagille Syndrome Symposium Announcement
- FASEB- Liver Biology Conference Announcement
- Upcoming Seminars



The Digestive Health Center (DHC) held its Annual Scientific Symposium virtually on Tuesday, February 22. The morning included 2 sessions of outstanding presentations from 14 digestive disease researchers. This was followed by Dr. Lopa Mishra from Feinstein Institutes for Medical Research and Northwell Health presenting the keynote address “TGF-Beta-ALDH2 Axis Regulates Obesity, Metabolic Syndrome and Cancer”. The following prizes were awarded for the best presentations:

**First Place: Milad Rezvani, MD, PhD** (Clinical Fellow, Department of Pediatrics, Division of Gastroenterology, Hepatology and Nutrition, member of Dr. Taka Takebe’s lab) for “Generating Human Liver Organoids with Syngeneic White Blood Cells as Model Platform for Cellular Crosstalk in Non-Alcoholic Steatohepatitis (NASH)”.

**Second Place: Maggie Peddicord** (Research Assistant, Department of Pediatrics, Division of Gastroenterology, Hepatology and Nutrition, member of Dr. Taka Takebe’s lab) for “A Human Organoid Platform to Analyze Hepatocyte-Adipocyte Crosstalk Associated with the Progression of NAFLD”.

**Third Place Tie: Daniel Kechele, PhD** (Research Associate, Department of Pediatrics, Division of Developmental Biology, member of Dr. Jim Wells’ lab) for “SOX21 Negatively Regulates SOX2 and the Gastric Fetal Progenitor Pool that Govern Human Stomach Organogenesis”.

**Third Place Tie: Surya Amarachintha, PhD** (Research Associate, Department of Pediatrics, Division of Gastroenterology, Hepatology and Nutrition, member of Dr. Jorge Bezerra’s lab) for “Abnormal Cilium Assembly and Disassembly Molecules Underlie Ciliary Dysfunction in an Organoid Model of Cholangiocyte Injury”.

See Page 2 for more highlights from the Annual Scientific Symposium.

## Photos and Highlights from Annual Scientific Symposium Continued

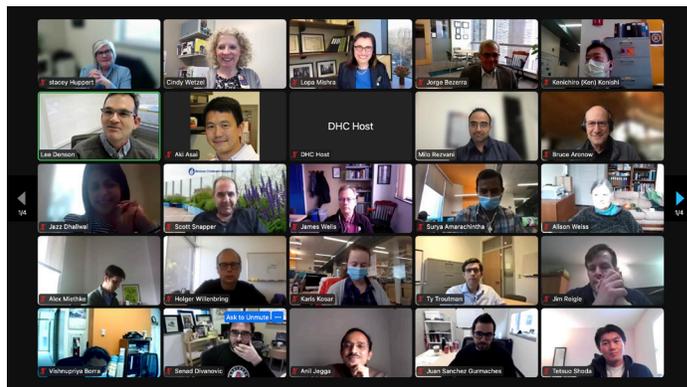
We would like to thank those who served as judges: Drs. Theresa Alenghat, Leah Kottyan, Chris Mayhew, Taka Nakamura, Ty Troutman, Jim Wells, and Chunyue Yin.

A special thank you to Drs. Stacey Huppert and Ted Denson for moderating the abstract pre-

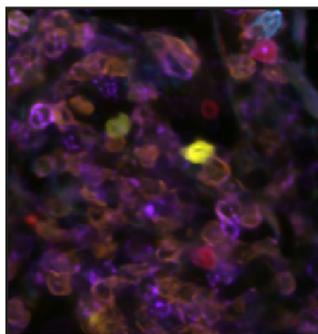


sentation sessions.

And a final thank you to Sara Thompson, DHC Program Coordinator, for her work with organizing her first DHC External Advisory Board Meeting and Annual Scientific Symposium.



## New Equipment at the Confocal Imaging Core



Confetti mice (CFP, GFP, YFP, RFP) stained with BV421, Alexa 647, Alexa 750.

The Confocal Imaging Core at Cincinnati Children's has installed two new confocal microscopes as of July 2021. The systems are one upright and one inverted Nikon AXR confocal. Both systems are equipped with a DUX-VB spectral detector with tunable filters and 8 laser lines (405nm, 445nm, 488nm, 514nm, 561nm, 594nm, 640nm, 730nm).

The combination of 8 laser lines and tunable detection have allowed users to improve multiplex imaging, using up to 8 fluorophores without need for spectral unmixing. An example of a multiplexed experiment would be: BV421, BV480, Pacific Orange, Alexa 488, Cy3, Alexa 594, Alexa 647, Alexa 750.

In addition to performing high-level multiplexed experiments, the systems are equipped with:

1. High-speed resonant scanners capable of imaging 2K x 2K.

2. 25mm field-of-view.
3. Improved detector electronics resulting in superior signal-to-noise.
4. High-speed piezo Z stage (inverted-600um range) or piezo Z nosepiece (upright-450um range).
5. Tokai hit stage-top incubators for live imaging with environmental control.
6. JOBS software for advanced acquisition.
7. Upright microscope is also equipped with a Faraday cage for electrophysiology recording as well as device triggering via a NIDAQ card and breakout box.

### **Benefits for DHC Members and Contact Information:**

The DHC will provide 25% of the total charge with a subsidy limit of \$1,200 per center member per year.

The Confocal Imaging Facility is located in Location R Room 3007A and 3020-3024.

Visit the [Confocal Imaging Core website](#) or contact Dr. Matt Kofron at 513-803-9055; [matthew.kofron@cchmc.org](mailto:matthew.kofron@cchmc.org).

## Member's Research Highlighted on Gastroenterology Journal Cover

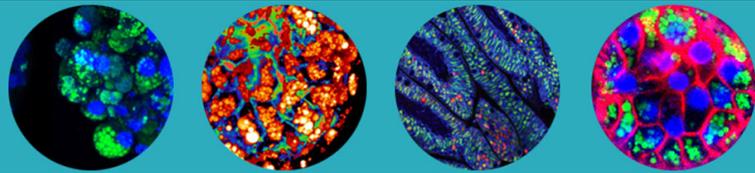


The research work of DHC Member, Dr. Marc Rothenberg, and lead author Dr. Tesuo Shoda was featured on the cover of the February 1, 2022 issue of the *Gastroenterology* journal. In conjunction with the Consortium of Eosinophilic Disease Researchers (CEGIR), they discovered a role for Tetraspanin 12 (TSPAN12) in patients who develop

fibrostenotic Eosinophilic Esophagitis (EoE). The researchers mechanistically elucidate the etiology of this severe EoE complication, determining that TSPAN12 loss occurs in endothelial cells in EoE and this promotes endothelial-fibroblast crosstalk, resulting in pro-fibrotic processes. They identify TSPAN12 as the first molecular correlate of fibrostenosis, providing new insight into the pathogenesis of fibrostenotic EoE and the rationale for blocking the loss of TSPAN12 as a treatment.

## Frontiers in Organoid Medicine Symposium

Frontiers in Stem Cell & Organoid Medicine  
March 24-25, 2022



The [Center for Stem Cell and Organoid Medicine](#) (CuSTOM) will host Frontiers in Stem Cell & Organoid Medicine Symposium on **March 24-25, 2022 12:00 pm to 8:00 pm EST**, virtually. Presentations will focus on topics ranging from basic research to clinical and commercialization transla-

tion of iPSCs (induced Pluripotent Stem Cells) and organoid technology.

To attend the symposium visit the [Registration Website](#) before March 11. For more information visit the [Symposium Website](#) or contact Olesya Rockel at [Olesya.Rockel@cchmc.org](mailto:Olesya.Rockel@cchmc.org).

## International Symposium and Scientific Meeting on Alagille Syndrome



The 10th International Symposium and Scientific Meeting on Alagille Syndrome will take place June 16-19 in Cincinnati. The Scientific Meeting will take place on Thursday June 16 and will consist of world renowned experts in the field.

Friday June 17 will be the Research Round-

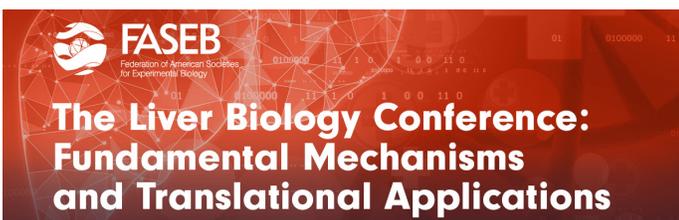
table and the Symposium for Patients and Families will be Saturday and Sunday June 18-19.

All events will be held in person at the Graduate Hotel (151 Goodman Drive, Cincinnati Ohio 35219) and virtually.

The abstract deadline to present your work is April 25. To attend the event visit the [Registration Website](#) before May 15.

For more information contact Dr. Stacey Huppert, DHC member and symposium organizer, at [Stacey.Huppert@cchmc.org](mailto:Stacey.Huppert@cchmc.org).

## FASEB Summer Research Conference June 26-30, 2022- Liver Biology



This FASEB Conference is the next iteration of a liver-focused meeting that has been held since 1988. It is recognized as the premier small confer-

ence covering all aspects of basic and translational research involving the liver.

The abstract deadline to present your work is May 16. To attend the conference in New Orleans, Louisiana visit the FASEB [Website](#) before May 26.

For more information contact Dr. Stacey Huppert, DHC member and primary symposium organizer, at [Stacey.Huppert@cchmc.org](mailto:Stacey.Huppert@cchmc.org).

## Seminar Series- Tuesdays at Noon, Virtually via Zoom

### See weekly e-mail announcement for link

Date	Presenter	Title
3/15/22	Kathryn Wikenheiser-Brokamp, MD, PhD CCHMC: Research Pathology Core	“Technologies and Services Enabling Morphologic Studies”
3/22/22	Rajat Madan, MD, PhD UC: Depart Internal Medicine Division Infectious Disease	“Farnesoid X Receptor Signaling in Clostridiodes difficile Infection Pathogenesis”
3/29/22	Phillip Minar, MD CCHMC: Gastroenterology	“Progressing from Expert Opinion to Treat-to-Target Precision Care (T2T-PC) in Pediatric IBD”
4/5/22	Suzanne Devkota, PhD Cedars Sinai Medical Center	“Uncovering A Microbial Mechanism for Creeping Fat in Crohn’s Disease”
4/12/22	Jessica Woo, MHSA, PhD CCHMC: Biostatistics and Epidemiology	“Diet Quality and Parental Feeding Styles in Relation to Early Obesity Risk”
4/19/22	Sindhu Pandurangi, MD CCHMC: Gastroenterology	“Diagnostic Accuracy of Serum MMP-7 as a Biomarker of Biliary Atresia in a Large US Cohort”
4/26/22	Michael Pauciulo, MBA CCHMC: Discover Together Biobank	“Discover Together Biobank: Facilitating Your Research”
5/3/22	Corie Klepper, MD CCHMC: Gastroenterology	Topic: Early Onset NAFLD
5/10/22	Pooja Khandelwal, MBBS CCHMC: Bone Marrow Transplant and Immune Deficiency	“Transcriptome Analysis of Gastrointestinal Biopsies Reveal a Unique Signature in Pediatric Acute GI GVHD and Similarities with Pediatric Inflammatory Bowel Disease”
5/17/22	Kevin Murray, MD CCHMC: Gastroenterology	“Defining Phenotypic and Genotypic Features of Eosinophilic Gastritis”
5/24/22	No Seminar Due to Digestive Disease Week Annual Meeting	
5/31/22	Daniel Castillo, MD CCHMC: Gastroenterology	“Relationship of Symptom Severity and the Microbiome in Children with Irritable Bowel Syndrome and the Effect of Percutaneous Electrical Nerve Field stimulation (PENFS)”

For more information regarding the DHC visit our [website](#) or contact one of the following:

Director:	Jorge Bezerra, MD	jorge.bezerra@cchmc.org
Associate Directors:	Ted Denson, MD	lee.denson@cchmc.org
	Heidi Kalkwarf, PhD, RD	heidi.kalkwarf@cchmc.org
	Aaron Zorn, PhD	aaron.zorn@cchmc.org
Center Manager:	Cynthia Wetzel, PhD	cynthia.wetzel@cchmc.org