

Annual Scientific Symposium Tuesday February 23, 2021

Virtually via the Zoom Platform

11:00 am to 1:00 pm

Selected Abstract Oral Presentations

Keynote Address: Holger Willenbring, MD, PhD

The Digestive Health Center (DHC) will host its Annual Scientific Symposium and External Advisory Board Meeting on February 23, 2021. The day will include a keynote address by Dr. Holger Willenbring from University of California, San Francisco.

Due to the pandemic and not being able to host large events, the DHC leadership team will select the top 4 abstracts to present an 8-10 minute oral presentation with 5 minutes for questions. The 4 selected abstracts will represent the following DHC research themes:

- 1) Liver Disease & Modeling
- 2) Digestive Disease & Immunity
- 3) Digestive Disease & Obesity
- 4) Translational Embryology

All submitted abstracts will be combined into a single file that will be shared with the DHC community.

To submit an abstract, visit the [DHC website](#) for the submission form. Abstracts must be submitted electronically by Friday, January 29, 2021 to cynthia.wetzel@cchmc.org. Prizes will be given to students and trainees for the best submitted abstracts.

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DHC Member Receives NIH Director's New Innovator Award



Takanori Takebe, MD an Assistant Professor in the Department of Pediatrics Divisions of Gastroenterology and Developmental Biology received the National Institutes of Health (NIH) 2020 Director's New Award. This award is part of the NIH high-risk, high-reward program to support exceptional early career investigators proposing innovative high-impact projects. Dr. Takebe will receive \$2.4 million for his project entitled "Engineering Multi-Organs in a Dish". The project focuses on directing human induced pluripotent stem cells to generate 3-D organogenesis of the hepato-biliary-pancreatic system.

Congratulations to Dr. Takebe for being one of the 53 recipients to receive this prestigious award.

DHC Seminar Series- Virtual Presentations



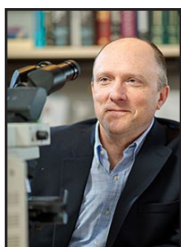
Our winter seminar series will begin on Tuesday January 12 with Alejandro Soto-Gutierrez, MD, PhD from University of Pittsburgh. His research focuses on using cutting edge technology to generate new liver tissue for transplantation.

Seminars are held on Tuesdays at noon. Due to the COVID-19 pandemic, we will continue to host our seminars virtually via the Zoom platform.

Please look for the weekly seminar email announcement for the link.

See page 4 for a complete listing of our 2021 Winter DHC Seminar Series.

New External Advisory Board Member



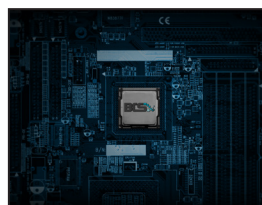
Dr. Thad Stappenbeck has joined the DHC External Advisory Board. He is currently the Chair of the Department of Inflammation and Immunity at the Lerner Research Institute at the Cleveland Clinic.

While Dr. Stappenbeck was at Washington University in St. Louis, he was a member of their NIDDK funded Digestive Diseases Research Core Center (DDRCC).

His research focuses on discovering host and environmental factors that impact inflammation and wound repair at mucosal surfaces.

Dr. Stappenbeck will join current External Advisory Board Members: Drs. Lopa Mishra (George Washington University), Scott Snapper (Boston Children's Hospital), and Holger Willenbring (University of California San Francisco). Dr. Noah Shroyer has stepped down from our External Advisory Board.

New Subsidy for Bioinformatics Collaborative Services



The DHC leaders worked with Krishna Roskin, PhD and Ron Bryson of the Cincinnati Children's Bioinformatics Collaborative Services (BCS), to provide its members bioinformatics tools to accelerate digestive disease research. Researchers are strongly encouraged to contact the BCS staff during the planning stages of their experimental design to ensure that the end results will provide useful data.

Below is a partial list of services that are provided by the BCS staff:

- Genotyping and variant calling (WGS, WES, genotyping arrays)
- Bulk gene expression (RNA-seq, GSEA, ex-

pression arrays)

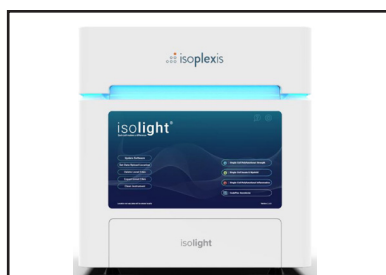
- Protein-DNA interaction and Epigenetics (ChIP-seq, CUT&RUN-seq)
- Chromatin accessibility (ATAC-seq)
- Single-Cell gene expression (scRNA-seq)
- Data storage and sharing
- Training

Benefits for DHC Members: The DHC will provide 25% of the total charge with a subsidy limit of \$2,400 per member per year.

To join the Bioinformatics User Group (BUGs) visit the [website](#) to signup.

For more information visit the BCS [website](#) or contact staff via email at help-bcs@bmi.cchmc.org.

New IsoLight Instrument at the Flow Cytometry Core



The Research Flow Cytometry Core (RFCC) at Cincinnati Children's Hospital recently purchased the IsoLight Instrument.

The IsoLight is capable of analyzing up to 32 cytokines, chemokines and other cellular mediators at a single cell level. This instrument has been shown to be highly valuable for elucidating

specific cellular pathways in single cells and will be invaluable to those investigators that have performed single cell gene expression studies or wish to examine mediators that are being produced on a single cell level.

The IsoLight can also measure levels of specific proteins in serum or other fluids (only needing 11 microliters) similar to the multiplex assays using Luminex or Milliplex technologies.

For more information visit the RFCC [website](#) or contact Core Director Dr. Sherry Thornton at sherry.thornton@cchmc.org or RFCC staff member Alyssa Sproles at alyssasproles@cchmc.org; 513-636-5880.

FASEB Summer Research Conference 2021- Liver Biology



Liver Biology: Fundamental Mechanisms &
Translational Applications
Abbreviated Virtual Meeting
June 15-16, 2021
Full in person meeting will be 2022

This FASEB Conference is the next iteration of a liver-focused meeting that has been held biennially since 1988 (until the COVID-19 pandemic). It is recognized as the premier small conference covering all aspects of basic and translational research involving the liver.

The program will include the following sessions:

1. Hepatogenesis and Hepatic Architecture Establishment

2. Hepatic Plasticity & Regenerative Medicine
3. Non-Parenchymal Cell Biology, Liver Injuries and Fibrosis
4. Steatotic Liver Diseases
5. Comprehensive Analyses of Hepatocellular Carcinogenesis
6. New Technologies, Functional Screening and Target Discovery
7. Liver Immunology, Translational Research and Combinatorial Therapies
8. Metabolism, Bile Acids & Nuclear Receptors

To register visit the [Symposium Website](#).

For more information contact the Conference Co-Director, Dr. Stacey Huppert (Associate Professor and DHC Member in the Division of Gastroenterology at Cincinnati Children's) at Stacey.Huppert@cchmc.org.

DHC Welcomes New Member



Jasbir Dhaliwal, MBBS, MRCPCH is an Assistant Professor and new faculty member in the Department of Pediatrics, Divisions of Gastroenterology, Hepatology, and Nutrition and Biomedical Informatics at Cincinnati Children's. Her research focuses on using machine

learning to develop an annotation tool to calculate eosinophilic density for the entire rectal mucosa to predict ulcerative colitis disease progression.

Interested in becoming a DHC member?

By becoming a DHC member, you will receive subsidies for many core services. Visit [our website](#) for further instructions.

For all publications, please acknowledge the DHC as follows:

"This project was supported in part by NIH P30 DK078392 (*insert name of core that you used*) of the Digestive Diseases Research Core Center in Cincinnati."

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

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Center Manager:	Cynthia Wetzel, PhD	cynthia.wetzel@cchmc.org

Seminar Series- Tuesdays at Noon, Virtually via Zoom

See weekly email announcement for link

Date	Presenter	Title
1/12/21	Alejandro Soto-Gutierrez, MD, PhD University of Pittsburgh	"Biofabrication of Human Livers"
1/19/21	Jason Blackard, PhD UC: Department of Internal Medicine Division Digestive Diseases	"Synthetic Opioid Use and Viral Infections: Expanding the Translational Research Agenda"
1/26/21	Joseph Palumbo, MD CCHMC: Hematology	"The Role of the Hemostatic System in Colitis and Colon Cancer Progression"
2/2/21	Nikolai Timchenko, PhD CCHMC: Ped General & Thoracic Surgery	"Molecular Mechanisms of Aggressive Pediatric Liver Cancer"
2/9/21	Heather McCauley, PhD CCHMC: Developmental Biology	"Enteroendocrine Cells Regulate Intestinal Function and Metabolism"
2/16/21	Bruce Aronow, PhD DHC Bioinformatics Core	"Using ToppCell to Understand Development, Disease and Physiologic Functions of GI Tissues"
2/23/21	DHC Annual Scientific Symposium Keynote Address by: Holger Willenbring MD, PhD University of California, San Francisco "Cellular Origins in Liver Regeneration and Cancer"	
3/2/21	Chunyue Yin, PhD CCHMC: Gastroenterology	"Progress Towards the Mechanisms Underlying Progressive Familial Intrahepatic Cholestasis"
3/9/21	Rana Herro, PhD CCHMC: Immunobiology	"The TNF Superfamily Control of Tissue Fibrosis"
3/16/21	Mariadena Mouzaki, MD CCHMC: Gastroenterology	"eoNAFLD: The Origins of the Most Common Pediatric Liver Disease"
3/23/21	Matthew Kofron, PhD CCHMC: Confocal Imaging Facility	"Modern Imaging, Sample Preparation, Analysis & AI Processing Tools of DHC Research"
3/30/21	Senu Apewokin, MD UC: Department of Internal Medicine Division Infectious Diseases	"Taking Microbiome Science Beyond Taxonomic Profiling"
4/6/21	Chandrashekhar Gandhi, PhD CCHMC: Gastroenterology	"Hepatic Stellate Cells: The Central Communicators in Liver Inflammation and Injury"