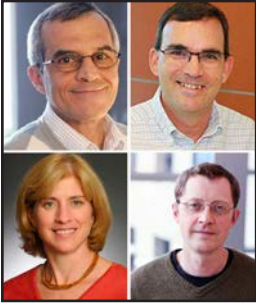


Renewing the DHC Grant- A Note From the Directors & Associate Directors



From Left to Right:
Drs. Bezerra, Denson,
Kalkwarf and Zorn

It is time to celebrate the successful 5 year renewal of our NIH Silvio Conte Digestive Diseases Research Core Center, known in Cincinnati as the Digestive Health Center (DHC). The DHC Newsletter author, Dr. Cynthia "Cindy" Wetzel, is excited to release the first issue of our third funding cycle of the DHC grant. Being fully committed to the operation and success of the DHC, she did an outstanding job orchestrating the renewal application. A key component of the Center's past achievements and the extraordinary score in the competitive renewal application was her continued engagement with the Center members and their laboratory staff, Core Directors and staff, and Pilot and Feasibility recipients. Continued on page 2.

2017 Pilot and Feasibility Recipients

The DHC is pleased to announce the recipients of its 2017 Pilot & Feasibility grants. We received a large number of competitive applications and faced a difficult task to select the 3 recipients listed below.

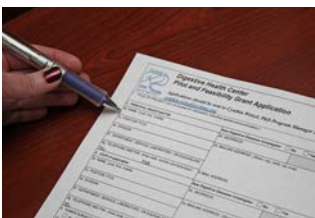
Patricia Fulkerson, MD, PhD

Soonah Shin, PhD

Jessica Woo, PhD, MHSA

See page 2 for a description of their research programs.

Request for Pilot & Feasibility Applications



The DHC is accepting applications for pilot projects to conduct basic, translational, patient-based, or outcomes research broadly relating to pediatric digestive disease. Funds will support highly focused projects with the goal of generating preliminary data sufficient to support an application for independent research through traditional National Institutes of Health (NIH) mechanisms. Funding for projects will range from \$40,000 to \$50,000.

Eligible applicants must have a faculty appointment. DHC membership is not required.

Applications are due Monday December 4, 2017 at 5:00 pm. Forms and submission guidelines are available on the [DHC website](#). For questions contact Aaron Zorn, PhD, Pilot and Feasibility Program Director at aaron.zorn@cchmc.org or Cindy Wetzel, PhD, DHC Manager at cynthia.wetzel@cchmc.org.

Save the Date - Annual Scientific Symposium

The DHC will host its Annual Scientific Symposium and External Advisory Board Meeting on **Tuesday February 27, 2018**. The day will include a poster session and keynote address by Dr. Scott Snapper from Boston Children's Hospital. Abstracts are due **Friday February 2, 2018**. This is an outstanding opportunity to present your digestive disease related work. Prizes will be given to students and trainees for the best poster presented at the meeting. Stay tuned for more details.



IN THIS ISSUE:

- Successful DHC Competitive Renewal Submission
- 2017 Pilot and Feasibility Recipients
- Request for Pilot and Feasibility Applications
- Annual Scientific Symposium
- 2017 Balistreri Lecture
- New External Advisory Board Members
- New Executive Committee Member
- DHC Member Highlights
- Upcoming Seminars

Renewing the DHC Grant- A Note From the Directors & Associate Directors Continued



Cindy coordinated a successful enrichment program that featured local and national leaders in the field sharing new advances and exploring collaborations.

So let's celebrate our renewed opportunities to work with outstanding members for 5 more years to advance digestive disease research at Cincinnati Children's and the University of Cincinnati, College of Medicine. Listed below are some of our accomplishments from the last five years.

- Consistent with our highly collaborative environment, our 83 members generated 670 publications with 299 (45%) having 2 or more members as co-authors. 81 publications were published in journals with impact factor ≥ 10 .
- Members received \$30.6 million in extramural funds for digestive disease research of which \$10.1 million was from NIDDK.
- 12 awardees from the Pilot and Feasibility Program transitioned to NIH R01/U01 funded investigators. \$1.6 million has been distributed to 37 awardees who have \$34.9 million in extramural funding and 130 publications.

In summary, Drs. Jorge Bezerra, Ted Denson, Heidi Kalkwarf and Aaron Zorn would like to recognize Cindy's leadership and commitment to the success of the Center and DHC members. We would also like to thank Jill Soldano, Administrative Assistant in the Gastroenterology Division for all of her help and for working many weekends to submit the 1,019 pages electronic application.

2017 Pilot and Feasibility Recipients Continued



Patricia Fulkerson, PhD; Dept. of Pediatrics; Division of Allergy and Immunology

"Eosinophil Progenitor Level as a Disease Monitoring Tool in Eosinophilic Esophagitis (EoE)"

Dr. Fulkerson will test if measuring the levels of eosinophil progenitor cells in the blood would serve as a biomarker for monitoring disease activity in patients with EoE.



Soona Shin, PhD; Dept. of Surgery; Division of Pediatrics General and Thoracic Surgery

"Reprogramming of FOX11+ Hepatic Progenitor Cells & Angiogenesis"

Dr. Shin will identify a number of disease-related cellular and molecular targets by modulating the reprogramming of hepatic progenitor cells that secrete angiogenic factors.



Jessica Woo PhD, MHSA; Dept. of Pediatrics; Division of Biostatistics and Epidemiology

"Identifying Microbiome Signatures in Infants at Risk of Developing Severe Early Childhood Obesity"

Dr. Woo will determine if differences in microbial composition early in development (6-12 months of age) can be used to identify who is at risk for developing early-onset obesity.

2017 William and Rebecca Balistreri Lecture



Dr. Richard Thompson will be the 2017 William and Rebecca Balistreri Lecturer for Translational Research in Hepatology. He is Professor at King's College London where his research focuses on

genetics of cholestatic liver disease.

Dr. Thompson will present his research on Tuesday October 24 as part of the DHC Seminar Series. He will also participate in "Balistreri Rounds", an opportunity to discuss a complex liver patient case on Wednesday October 25 at 7:30 am.

New External Advisory Boards Member



Dr. Scott Snapper has joined the DHC External Advisory Board. He is the Wolpov Family Chair in Inflammatory Bowel Disease Treatment and Research. Dr. Snapper is the Director of the Inflammatory Bowel Disease Center and Basic & Translational Research at Boston Children's Hospital. Additionally, he is the Director of Inflammatory Bowel Disease Research at Brigham and Women's Hospital. Dr. Snapper's research focuses on the cellular and molecular mechanisms of mucosal immunity that promote immune homeostasis and gastrointestinal health.



Dr. Rebecca Wells will also join the DHC External Advisory Board. She is an Associate Professor at the University of Pennsylvania. Dr. Wells investigates the molecular mechanisms of hepatic fibrosis.

Drs. Snapper and Wells will join the current External Advisory Board Members of Dr. Stephen Duncan (Medical University of South Carolina) and Dr. Phillip Tarr (Washington University in St. Louis). Drs. Jacquelyn Maher (University of California, San Francisco) and Brent Polk (Children's Hospital of Los Angeles) will rotate off the board.

New DHC Executive Committee Member



The DHC Executive Committee consists of the Center Director, Center Associate Directors, Center Manager, Directors and staff of the Biomedical Cores, and one DHC Investigator who represents the membership. The committee is instrumental in overseeing the operation of the DHC while developing new initiatives to advance the center.

For the past 5 years Yana Zavros, PhD (Professor



in the Department of Pharmacology and Systems Physiology) represented the DHC membership-at-large. Her successor is Nikolai Timchenko, PhD, who is Professor in the Department of Surgery, Division of Pediatric General and Thoracic Surgery. The DHC leadership thanks Dr. Zavros for her time and her invaluable programmatic guidance. We welcome Dr. Timchenko to the DHC executive committee.

DHC Member Highlights



Lee (Ted) Denson, MD received the Sherman Prize for Excellence in Crohn's and Colitis from The Bruce and Cynthia Sherman Charitable Foundation. The Sherman prize was established in 2016 to recognize outstanding contributions by an individual who is advancing patient care, medical research, and public service in the field of Crohn's and Colitis. Dr. Denson is Professor in the Division of Gastroenterology, Department of Pediatrics and is Director of the Schubert-Martin IBD Center. He holds the M. Susan Moyer Chair in Pediatric Inflammatory Bowel Disease. He is also a DHC Associate Director overseeing the Enrichment Program.

Dr. Kenneth Sherman was elected to the position of Chair of the Liver and Biliary Section of the American Gastroenterological Association (AGA). As chair, he will be responsible for programmatic direction as it relates to liver disease and transplantation for the AGA. Dr. Sherman is Professor and Director of the Division of Digestive Diseases, Department of Internal Medicine at University of Cincinnati, College of Medicine.



For all publications, please acknowledge the DHC as follows:
"This project was supported in part by PHS Grant P30 DK078392 (*insert name of core that you used*) of the Digestive Diseases Research Core Center in Cincinnati."

Seminar Series- Tuesdays at Noon, Room S6.125

Date	Presenter	Title
9/12/17	Digestive Health Center Leadership	Town Hall and Open Forum with Digestive Health Center Leadership
9/19/17	Subra Kugathasan, MD Emory University School of Medicine	“Epigenome and Transcriptome of IBD: Insights into Disease Susceptibility, Progression and ‘Druggable’ Targets”
9/26/17	Jessica Woo, MHSA, PhD CCHMC: Biostatistics & Epidemiology	“Identifying Microbiome Signatures in Infants at Risk of Developing Severe Childhood Obesity”
10/3/17	Nathan Salomonis PhD CCHMC: Biomedical Informatics	“Automating the Analysis of Thousands of Cells with Droplet Sequencing and AltAnalyze”
10/10/17	Srinivasan Dasarathy, MD Cleveland Clinic	“Mechanisms of Sarcopenia in Liver Disease”
10/17/17	Soona Shin, PhD CCHMC: Pediatric Surgery	“Reprogramming of FOX11+ Hepatic Progenitor Cells and Angiogenesis”
10/24/17	Richard Thompson, BM, BCh, MRCP, MRCPCH King’s College London	“Mechanisms of Cholestasis”
10/31/17	Christian Hong, PhD and Chet Closson UC: Live Microscopy Core	“UC Live Microscopy Core: Applications of Confocal and Multiphoton Microscopy”
11/7/17	Heather Bradley-Francis, PhD Texas A&M University	“Mast Cell Regulations of NASH-induced Liver Damage and Repair”
11/14/17	Shailendra Patel, BM, ChB, DPhil UC: Dept. of Internal Medicine; Division Endocrinology, Diabetes and Metabolism	“Sitosterolemia, Smith-Lemli-Opitz Syndrome, Desmosterolosis and Cerebrotendinous Xanthomatosis”
11/21/17	No Seminar Due to the Thanksgiving Holiday	
11/28/17	Michel Neunlist, PhD University of Nantes, France	“The Second Brain in Health and Disease: Role of the Neuro-glio-epithelial Crosstalk”
12/5/17	Phillip Minar, MD CCHMC: Gastroenterology	“PK/PD Modeling to Improve Infliximab Durability in Pediatric Crohn’s Disease”

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

Annual Scientific Symposium Tuesday February 27, 2018

Poster Session: 9:30 to 11:45 am
Location S Room 1.203 and 1.204
Keynote Address: Scott Snapper, MD, PhD
Location R Room 3381 (Research Auditorium) 12:00 pm

The Digestive Health Center (DHC) will host its Annual Scientific Symposium and External Advisory Board Meeting on February 27, 2018. The day will include a poster session and keynote address by Dr. Scott Snapper from Boston Children's Hospital. Building on the success of previous years, the poster session will feature work related to any area of digestive disease, including the four DHC themes:

- 1) Liver Disease and Modeling
- 2) Digestive Disease and Immunity
- 3) Digestive Disease and Obesity
- 4) Translational Embryology (of the Digestive System)

You do not have to be a member of the DHC to submit an abstract. Prizes will be given to students and trainees for the best poster presented. Visit the [DHC website](#) for the abstract submission form and instructions. Abstracts must be submitted electronically by Friday, February 2, 2018 to cynthia.wetzel@cchmc.org.

Cincinnati Children's Launches Center for Stem Cell and Organoid Medicine (CuSTOM)

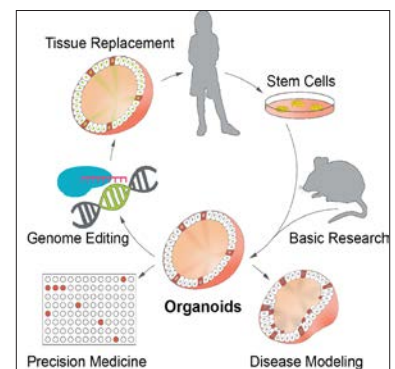
In February 2011, DHC Members, Drs. Jason Spence, Susa Wells, Aaron Zorn, Noah Shroyer, and James Wells, published in *Nature* (2011; 470:105-109) the ability to direct the differentiation of human pluripotent stem cells (PSCs) into intestinal tissue in vitro using a series of growth factor manipulations to mimic natural embryonic intestinal development. With these researchers and others continuing to advance the field, Cincinnati Children's has invested nearly \$13 million to create the [Center for Stem Cell and Organoid Medicine](#) (CuSTOM).

Dr. Aaron Zorn, who is the DHC Associate Director overseeing the Pilot and Feasibility Program, is the director of this new organoid center. The CuSTOM leadership (Drs. Aaron Zorn, James Wells, Michael Helmuth, and Takanori Takebe) have assembled a highly collaborative multi-disciplinary team of basic scientists, clinicians, surgeons, and entrepreneurs to accelerate scientific discovery and facilitate bench-to-bedside translation organoid technology.

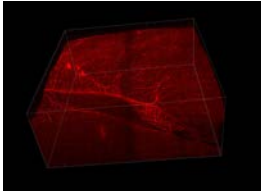
Many of the CuSTOM research faculty (9 of 15) are current DHC members. It is believed that CuSTOM is the first dedicated center at a pediatric research institution that is focused on advancing pluripotent stem cell-organoid technology and translating its potential to clinical practice.

IN THIS ISSUE:

- Annual Scientific Symposium
- Cincinnati Children's Launches CuSTOM
- New Subsidy for Confocal Imaging
- New Subsidy for Biostatistics & Data Management
- Summary of DHC Subsidies
- Remember to Acknowledge DHC Grant
- Associating Publication to DHC Grant
- New DHC Member
- Upcoming Seminars



New Subsidy for Confocal Imaging



Volume rendering of a mouse liver image for second harmonic generation

The DHC leaders worked with Dr. Matt Kofron, Director of the Cincinnati Children's Confocal Imaging Core, to support access to high-end imaging devices and the expertise to utilize these microscopes.

The staff of the Confocal Imaging Core provides one-on-one training to properly use each system. They also provide con-

sultation regarding imaging, and/or experimental setup up at no cost to the user.

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

The Confocal Imaging Facility is located in Location R Room 3007A and 3020-3024. For more information regarding the equipment and services visit the [Confocal Imaging Core website](#) or contact Dr. Matt Kofron at matthew.kofron@cchmc.org or 513-803-9055.

New Subsidy for Biostatistical Consulting Unit and Data Management Center



The DHC leaders worked with Matt Fenchel, Rachel Akers, Cyndie Baker, and Dr. Lin Fei to offer a subsidy to our members

for biostatistical analysis and data management. The following services are available:

- Collaboration on study design- including power and sample-size analyses
- Grant/Protocol development or review
- Statistical analyses
- Case report form design and development
- Database design and development
- Programming for data merges and derived variables (measures)
- Reviewing data for quality assurance: range, missing data, programming and logic checks

To obtain assistance for:

- Biostatistical Consulting visit the [Biostatistical Consulting Unit \(BCU\) website](#)
- Clinical Data Management support visit the [Data Management Center \(DMC\) website](#)

Benefits for DHC Members:

The DHC will provide 25% of the total charge for services provided at the BCU and/or DMC with a subsidy limit of \$1,200 per member per year.

For more information regarding BCU contact Matt Fenchel at bcu@cchmc.org (513-803-0086)

For more information regarding DMC contact Rachel Akers at dmc@cchmc.org (513-636-7572) or Cyndie Baker cynthia.baker@cchmc.org (513-803-4702)

Summary of DHC Research Core Subsidies



In addition to receiving subsidies for Confocal Imaging, Biostatistical Consulting Unit, and Data Management Center as described above, DHC Members are eligible to

receive subsidies at the following Cores at Cincinnati Children's and University of Cincinnati:

- Analyzer Usage and Luminex Assay at Flow Cytometry Core
- All Services at Research Pathology
- Live Microscopy at University of Cincinnati
- All Services at DNA Sequencing Core

- Single Cell RNA-Seq Services (Fluidigm C1 & Chromium 10x Genomics) and Small Sample RNA-Seq Analysis at Gene Expression Core
- Bioinformatics Support
- All Services at Pluripotent Stem Cell Facility

For details regarding the subsidies for each service, please visit the [DHC website](#). Members receive the DHC subsidy only when a budget number that supports digestive disease research pays for the service.

If you have any questions about receiving the DHC subsidy please contact Cindy Wetzel, PhD at cynthia.wetzel@cchmc.org.

Received DHC Core Subsidy- Remember to Acknowledge DHC Grant

If you have received a Core subsidy from the DHC, please remember to acknowledge the DHC grant in your publication by stating:

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

Publications that are a result of National

Associating DHC Members' Publications to DHC Grant

The National Institutes of Health (NIH) requires publications that are authored by DHC members be associated to the DHC grant even if the publication did not officially acknowledge receiving support from the DHC grant. The DHC manager linking the publication to the DHC grant may cause the publication to be marked as “non-compliant” in the DHC member’s MyNCBI My Bibliography publication listing. Follow the steps below to change the publication status from “non-compliant” to “not applicable” (N/A) in My Bibliography (note each author will have to do this). Following these steps will allow the DHC manager to associate the publication for NIH reporting purposes without the DHC member having to submit the publication to the NIH Manuscript Submission (NIHMS) system.

Bondoc AJ, Taylor JA, Alonso MH, Nathan JD, Wang Y, Balistrieri WF, Bezerra JA, Ryckman FC, Tiao GM. [The beneficial impact of revision of Kasai portoenterostomy for biliary atresia: an institutional study](#). Ann Surg. 2012 Mar;255(3):570-6. doi: 10.1097/SLA.0b013e318243a46e. PubMed PMID: 22258066.

NIH Public Access Compliance: Non-compliant. Citation not in NIHMS or PMC [Edit Status] **1. Click**

NIH Funding: **Publication “Noncompliant”**
P30 DK078392 - Digestive Health Center (DHC): Bench to Bedside Research in Pediatric Digestive Disease; ADMINISTRATIVE CORE; Digestive Health Center: Bench to Bedside Research in Pediatric Digestive Diseases; Digestive Health Center: Bench to Bedside Research in Pediatric Digestive Disease
[Add or delete award](#)

New DHC Member



The DHC is pleased to welcome one new member.

Marialena Mouzaki, MD, MSc is an Associate Professor and a new faculty member in the Division of Gastroenterology, Hepatology, and Nutrition at Cincinnati Children’s.

Institutes of Health (NIH) funding must be submitted to the NIH Manuscript Submission (NIHMS) system. These publications will then be part of the PubMed Central repository and will obtain a PubMed Central ID number (PMCID).

Help the DHC to be compliant by acknowledging the grant and ensuring your publication has been submitted to the NIHMS system.

At least one NIH grant is associated with this citation.

The NIH Public Access Policy requires scientists to submit final, peer-reviewed journal manuscripts that arise from NIH funds to the digital archive PubMed Central upon acceptance for publication. (See [Determine Applicability](#) for full details.) Please submit the final manuscript sent to your publisher or indicate that this publication is exempt from the policy.

We do not have a record of this citation in NIH Manuscript Submission system (NIHMS). Please choose from the following:

Begin submission in the NIHMS.

This citation has been submitted. NIHMS ID:

Arrangements have been made for a [publisher on this list](#) to send the final published article directly to PubMed Central. ([Method B](#))

This citation does not need to be submitted under NIH Public Access because:

Publication was not peer reviewed.

Publication was accepted for publication before April 7, 2008.

Publication was written in a script other than Latin (e.g., Russian, Japanese).

Publication was not [directly supported](#) by NIH funds active in FY08 or beyond.

2. Select (points to the selected option)

3. Select (points to the selected option)

4. Click (points to the Save & Close button)

Bondoc AJ, Taylor JA, Alonso MH, Nathan JD, Wang Y, Balistrieri WF, Bezerra JA, Ryckman FC, Tiao GM. [The beneficial impact of revision of Kasai portoenterostomy for biliary atresia: an institutional study](#). Ann Surg. 2012 Mar;255(3):570-6. doi: 10.1097/SLA.0b013e318243a46e. PubMed PMID: 22258066.

NIH Public Access Compliance: Not applicable [Edit Status] **Publication “Not Applicable”**

NIH Funding:
P30 DK078392 - Digestive Health Center (DHC): Bench to Bedside Research in Pediatric Digestive Disease; ADMINISTRATIVE CORE; Digestive Health Center: Bench to Bedside Research in Pediatric Digestive Diseases; Digestive Health Center: Bench to Bedside Research in Pediatric Digestive Disease
[Add or delete award](#)

Her research focuses on the role of the intestinal microbiota in the development and progression of Nonalcoholic fatty liver disease (NAFLD).

Membership is open to all faculty members involved in digestive disease research. If you are interested in joining the DHC, visit [our website](#) for further instructions.

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

Seminar Series- Tuesdays at Noon, Room S6.125

Date	Presenter	Title
1/9/18	James Bayrer, MD, PhD University of California, San Francisco	“Nuclear Receptor LRH-1 Enhances Intestinal Epithelial Resilience and Regulates Gut Chemosensory Cell Development”
1/16/18	Jessica Woo, MHSA, PhD CCHMC: Biostatistics and Epidemiology	“Identifying Microbiome Signatures in Infants at Risk of Developing Severe Childhood Obesity”
1/23/18	Terrence Barrett, MD University of Kentucky	“Metabolic Requirements for Epithelial Reprogramming in Ulcer Healing”
1/30/18	Jorge Munera, PhD CCHMC: Developmental Biology	“Human Colonic Organoids from Stem Cells to Study Development and Disease”
2/6/18	David Haslam, MD CCHMC: Infectious Diseases	“Microbiome Analysis”
2/13/18	Kavisha Arora, PhD CCHMC: Pulmonary Medicine	“cGMP Dependent Signaling Mechanisms to Control Intestinal Fluid Transit”
2/20/18	Akihiro Asai, MD, PhD CCHMC: Gastroenterology	“Modeling Human Liver Disease with <i>Our</i> Patients’ iPSCs”
2/27/18	DHC Annual Scientific Symposium Keynote Address by: Scott Snapper, MD, PhD Boston Children’s Hospital “Very Early Onset Inflammatory Bowel Diseases: Identifying Causal Genes in Infants Leading to New Insights and Therapies” *Distinct Location: Research Auditorium	
3/6/18	No Seminar due to Midwest Digestive Diseases Research Core Centers Alliance Meeting	
3/13/18	Shekhar Gandhi, MsC, PhD CCHMC: Gastroenterology	“Liver Fibrosis: Confusion and Profusion”
3/20/18	Bruce Yacyshyn, MD UC: Department of Internal Medicine Division Digestive Diseases	“Novel Targets and Approaches in IBD Diagnostics and Therapeutics”
3/27/18	Stavra Xanthakos, MD, MSc CCHMC: Gastroenterology	“Update on Nonalcoholic Fatty Liver Disease in 2018; Clinical and Translational Research Priorities”
4/3/18	Sujit Mohanty, PhD CCHMC: Ped General & Thoracic Surgery	“Molecular Basis of Virus Induced Fibrosis in the Murine Model of Biliary Atresia”
4/10/18	Lin Fei, PhD CCHMC: Biostatistics and Epidemiology	“Overview of Biostatistics, Data Management Capabilities, and Statistical Issues of Multiplicity Adjustment”

Highlights from the 2018 Annual Scientific Symposium



Poster Winners from
Left to Right:
Loryn Holokai, Heather
McCauley, PhD and
Andrew Patterson

IN THIS ISSUE:

- Highlights from the Annual Scientific Symposium
- Mahe wins Nature Reviews Image Competition
- Annual NIH Progress Report Submission
- Member Highlights
- New DHC Member
- Upcoming Seminars

The Digestive Health Center (DHC) held its Annual Scientific Symposium on Tuesday, February 27. Scott Snapper from Boston Children's Hospital presented the keynote address "Very Early Onset Inflammatory Bowel Diseases: Identifying Causal Genes in Infants Leading to New Insights and Therapies". Posters were displayed by 46 researchers representing 9 Divisions in the Department of Pediatrics and 5 Departments within the University of Cincinnati, College of Medicine. Additionally, there were 10 posters displayed highlighting research core services. Prizes were awarded for the best presented posters:

First Place: Andrew Patterson (Graduate Student, Cincinnati Children's, Division of Immunobiology member of Dr. Kasper Hoebe's lab) for "A Gimap5aGSK3 β Axis Enables Productive T Cell Division By Limiting DNA Damage".

Second Place: Heather McCauley, PhD (Research Fellow, Cincinnati Children's, Division of Developmental Biology, member of Dr. Jim Wells's lab) for "Enteroendocrine Regulation of Nutrient Absorption".

Third Place: Loryn Holokai (Graduate Student, University of Cincinnati, Pharmacology and Systems Physiology, member of Dr. Yana Zavros' lab) for "Chemotherapy Induces Pancreatic Cancer Organoid Immune Evasion by Upregulating Programmed Death Ligand 1".

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

Mahe wins Nature Reviews Gastroenterology & Hepatology Cover Competition

DHC member, Maxime Mahe, PhD and his research lab member, Holly Poling, won the 2017 *Nature Reviews Gastroenterology & Hepatology* image competition. Their image entitled "The daisies of the gut" will be featured on the cover throughout 2018. The image depicts the epithelial cross-section of a transplanted human intestinal organoid under the kidney capsule that was generated from pluripotent stem cells through a directed differentiation process in vitro. They received a one year online subscription to the journal and a print of their cover. The next Nature Reviews image competition cycle will be early summer 2018.



Photos and Highlights from Annual Scientific Symposium Continued

We would like to especially thank Jill Soldano for her amazing job hosting the External Advisory Board Members and her superb organization of the Annual Scientific Symposium. We would also like to thank Ruth Castle, GiGi DiPuccio, Deanna Louis, and Angie Vickers for their exceptional assistance with hosting the Symposium.



Left to Right: GiGi DiPuccio, Jill Soldano, Angie Vickers, Deanna Louis and Ruth Castle.



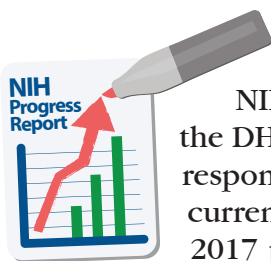
Thanks to the judges and amazing organizers!

We also thank those who reviewed posters:

Drs. Aihara, Alenghat, Asai, Balistreri, Blackard, Cha, Divanovic, Gandhi, Heubi, Hoebe, Hogan, Hommel, Hong, Huppert, Kottyan, Liu, Madan, Minar, Mohanty, Mouzaki, Nakamura, Naren, Patel, Perez-Tilve, Rosen, Rothenberg, Shata, Shivakumar, Steinbrecher, Takebe, Timchenko, Waltz, Way, Weaver, Woo, Worrell, Yacyshyn, Yin, Zavros, Zimmermann, and Zingarelli.



Annual NIH Progress Report to be Submitted



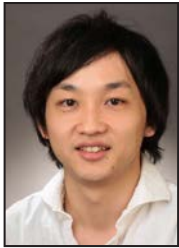
The annual DHC Progress Report will be submitted to NIH by April 1. We thank all the DHC members for their prompt response in providing us with their current grant funding and their 2017 publications. During the visit by the External Advisory Board, the DHC leadership showcased the high quality of research being done by our members and the state-of-the-art services by the DHC supported research cores.

Listed below are some of our accomplishments highlighted in this year's NIH progress report.

- Consistent with our highly collaborative environment, our 85 members generated 137 digestive disease related publications with 47 (34%) having 2 or more members as co-authors. 28 publications were published in journals with impact factor ≥ 10 . 65 publications contained results from a DHC supported research core.
- Members received \$32.5 million in extramural funds for digestive disease research of which \$10.4 million was from NIDDK.
- In the past 10 years, 11 Pilot and Feasibility Recipients have transitioned to NIH R01/U01 funded investigators. \$1.5 million has been distributed to 33 awardees who have \$28.5 million in extramural funding, a 19 fold return on investment.

DHC Member Highlights

Takebe Receives Presidential Award in Japan



Takanori Takebe, MD received the prestigious Presidential Award from the Japan Agency for Medical Research and Development, which is the Japanese equivalent to the NIH. He is an Assistant Professor in the Department of Pediatrics, Divisions of Gastroenterology and Developmental Biology at Cincinnati Children's.

Inflammatory Bowel Disease Center Receives Clinical Team Achievement Award

DHC members Lee "Ted" Denson, MD, Simon Hogan, PhD, Phillip Minar, MD, and Michael Rosen, MD, MSCI along with Margaret Collins, MD, Richard Falcone, MD, MPH; Jason Frischer, MD; Peter Margolis, MD, PhD; and Michael



From Left to Right: Drs. Frischer, Rosen, Collins, Mellon, Denson and Minar. Not pictured Drs. Falcone, Hogan, and Margolis

Mellon, PhD, ABPP received the Cincinnati Children's Clinical Team Faculty Award for the Inflammatory Bowel Disease Center. The Center's innovative and collaborative approach has become a model for other centers throughout the world.

Mayhew Receives Service Achievement Award



Christopher Mayhew, PhD received the Cincinnati Children's Service Achievement Faculty Award. Dr. Mayhew is the Director of the Pluripotent Stem Cell Facility, which is supported by the DHC. Dr. Mayhew works with many of the DHC members by training their research staff to use the cutting-edge pluripotent stem cell technology.

New DHC Member



The DHC is pleased to welcome one new member.

Alexander Bondoc, MD is an Assistant Professor in the Department of Surgery, Division of Pediatric General and Thoracic Surgery at Cincinnati Children's. His research focuses on the molecular and cellular mechanisms of pediatric liver cancer.

Membership is open to all faculty members involved in digestive disease research. If you are interested in joining the DHC, 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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Seminar Series- Tuesdays at Noon, Room S6.125

Date	Presenter	Title
3/20/18	Bruce Yacyshyn, MD UC: Department of Internal Medicine Division Digestive Diseases	"Novel Targets and Approaches in IBD Diagnostics and Therapeutics"
3/27/18	Stavra Xanthakos, MD, MSc CCHMC: Gastroenterology	"Update on Nonalcoholic Fatty Liver Disease in 2018; Clinical and Translational Research Priorities"
4/3/18	Sujit Mohanty, PhD CCHMC: Ped General & Thoracic Surgery	"Molecular Basis of Virus Induced Fibrosis in the Murine Model of Biliary Atresia"
4/10/18	Lin Fei, PhD and Matthew Fenchel CCHMC: Biostatistics and Epidemiology	"Overview of Biostatistics, Data Management Capabilities, and Statistical Issues of Multiplicity Adjustment"
4/17/18	Christopher Mayhew, PhD CCHMC: Pluripotent Stem Cell Facility	"CCHMC Pluripotent Stem Cell Facility: CRISPR/Cas9-mediated Genome Editing of Human iPSCs"
4/24/18	Laura Bauman, MD CCHMC: Gastroenterology	"Host: Microbe Signature for Refractory Colitis"
5/1/18	Basilina Zingarelli, MD, PhD CCHMC: Critical Care	"AMPKalpha and Mitochondrial Quality Control in Liver Damage During Sepsis"
5/8/18	Daniel "Rory" Kelly, MD CCHMC: Gastroenterology	"Intestinal Microbiota and the Epigenetics of Pediatric Crohn's Disease"
5/15/18	Kirstin Sadler Edepli, PhD New York University Abu Dhabi	"Epigenetic Control of Liver Growth and Regeneration"
5/22/18	Jennifer Hellmann, MD CCHMC: Gastroenterology	"The Prevalance of C. difficile Infection and Dysbiosis in Pediatric Patients with Inflammatory Bowel Disease and Impact on Disease Activity"
5/29/18	David Vitale, MD CCHMC: Gastroenterology	"Predictors of Severity in Pediatric Acute Pancreatitis: The Path to Improve the Outcomes"