

# DHC Newsletter

*Bench-to-Bedside Research in Pediatric Digestive Disease*

By: **Cynthia C. Wetzel, PhD**



A Quarterly Publication from the Digestive Health Center

June 2015 Volume 12 Issue 1

## 2015 Pilot and Feasibility Recipients

The Digestive Health Center (DHC) is pleased to announce the recipients of its 2015 Pilot & Feasibility grants. We received a large number of competitive applications and faced a difficult task to select 4 recipients. Below we introduce the awardees and their research programs.



**Maxime Mahe, PhD**

Cincinnati Children's Dept. of Pediatrics; Division of General and Thoracic Surgery

*"Effects of the Enteric Nervous System on Human Intestinal Epithelial Functions"*

Dr. Mahe will determine the molecular and cellular processes involving the enteric nervous system in the maturation of the human intestinal epithelial functions.

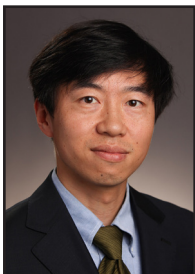


**Takahisa Nakamura, PhD**

Cincinnati Children's, Dept. of Pediatrics; Division of Endocrinology and Developmental Biology

*"Role of Argonaute-2 in Selective Hepatic Insulin Resistance"*

Dr. Nakamura will investigate the role of hepatic Argonaute-2 in the regulation of mitochondrial function and lipid metabolism in obesity.

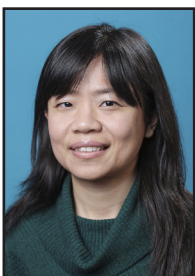


**Ting Wen, PhD**

Cincinnati Children's, Dept. of Pediatrics; Division of Allergy and Immunology

*"Analysis and Function of Esophageal Lymphocytes in Eosinophilic Esophagitis"*

Dr. Wen will analyze the single-cell transcriptomes of intraepithelial lymphocytes in order to determine their role in the pathogenesis of Eosinophilic Esophagitis.



**Chunyue Yin, PhD**

Cincinnati Children's, Dept. of Pediatrics; Division of Gastroenterology, Hepatology, and Nutrition

*"Mutation of Crumbs Family Member 1 Causes Intrahepatic Bile Duct Paucity in Zebrafish"*

Dr. Yin will define how a novel mutation in the crumbs family 1 gene, which plays a key role in maintaining epithelial polarity, leads to ductopenia in zebrafish.

### IN THIS ISSUE:

- 2015 Pilot and Feasibility Recipients
- New Division Director
- FDA Approval of Cholbam
- Transition to Full Membership
- AASLD Fellow Listing
- Members Receive Honors
- New DHC Members
- Annual SPLIT Meeting
- New AASLD Councilor
- 2015 Balistreri Lecture

## New Director, Division of Gastroenterology, Hepatology & Nutrition



Dr. Jorge Bezerra, Director of the Digestive Health Center and the William and Rebecca Balistreri Chair of Pediatric Hepatology, was appointed as the new Director of the Division of Gastroenterology, Hepatology & Nutrition at Cincinnati Children's. Dr. Bezerra obtained his medical degree from Federal University Rio Grande Norte in Natal, Brazil. He completed his residency at the

University of Arizona Health Sciences.

Dr. Bezerra arrived at Cincinnati Children's in 1990 for his Pediatric Gastroenterology Fellowship and quickly rose through the ranks to Professor. In addition to being the director of the DHC P30 grant, he is the Director of the U01 Clinical Center for Cholestatic Liver Disease in Children and has three R01 grants.

Congratulations to Dr. Bezerra in his new leadership role at Cincinnati Children's!

## Drs. Heubi and Setchell Receive FDA Approval

The United States Food and Drug Administration (FDA) approved the drug Cholbam for the treatment of defects in bile acid metabolism. Cholbam was developed by Dr. James Heubi, a DHC member, and Dr. Kenneth Setchell at Cincinnati Children's.



Children born with the rare and potentially deadly bile acid metabolic defect accumulate intermediary toxic bile acids that cause liver damage. Drs. Heubi and Setchell discovered that the administration of cholic acid to affected children leads to the suppression of the accumulation of toxic bile

acid precursors in the liver, decreased liver injury, and improved bile flow.

After many years of the team working with various suppliers to custom make cholic acid, they have the final product called Cholbam. It is marketed by Retrophin Inc. under the license from Asklepion Pharmaceuticals LLC. Now children born with the bile acid metabolic defect are able to take a daily medication instead of joining the wait list for a liver transplant.

Congratulations to Drs. Heubi and Setchell for being able to see their discovery at the research bench move all the way to an FDA approved medication!

## Transition to Full Membership - Dr. Kohli

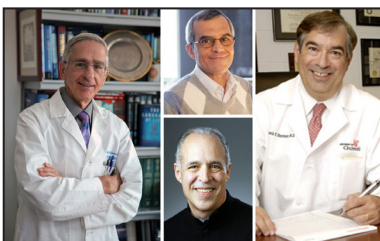


Dr. Rohit Kohli, Associate Professor in the Division of Gastroenterology, Hepatology and Nutrition at Cincinnati Children's, received his first NIH R01 award from the National Institute of Diabetes and Digestive and Kidney Diseases. The

title of his grant is "NAFLD (Non-Alcoholic Fatty Liver Disease) Improvement After Bariatric Surgery: The Role of Bile Acid Signaling". Dr. Kohli used preliminary data from his DHC Pilot and Feasibility Award for his R01 grant application.

Congratulations to Dr. Kohli for transitioning to Full Membership status in the DHC.

## Inaugural Class of AASLD Fellows



From Left to Right: Drs. Balistreri, Bezerra, Bucuvalas, and Sherman

The American Association for the Study of Liver Disease (AASLD) established a membership designation of "Fellows" to identify members who have made a significant

contribution to the knowledge and/or practice of liver and biliary diseases.

Four DHC members were part of the Inaugural class: Drs. William Balistreri, John Bucuvalas, and Jorge Bezerra from Cincinnati Children's and Dr. Kenneth Sherman from the University of Cincinnati.

Congratulations to these DHC members for being part to the Inaugural class of AASLD Fellows.

## DHC Member Highlights and New DHC Members

### Alenghat Becomes PEW Scholar



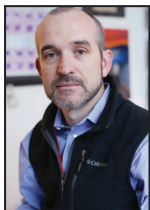
Theresa Alenghat, PhD, Assistant Professor in the Immunobiology Division at Cincinnati Children's, is part of the 2015 class of PEW Scholars. The PEW Scholars Program in the Biomedical Sciences provides funding relevant to the advancement of human health to young investigators of outstanding promise who are within the first two years at the assistant professor level.

### Whitsett Receives Mary Ellen Avery Award and Virginia Apgar Award

Jeffrey Whitsett, MD, Co-Director of Perinatal Institute and Chief of Section of Neonatology, Perinatal and Pulmonary Biology, will receive the Mary Ellen Avery Award and the Apgar Award. The Mary Ellen Avery Award was established in 2013 by the American Pediatric Society and Society for Pediatric Research to recognize the lifetime achievement of a pediatric investigator who has made important contributions to neonatal health through basic or translational research. The Virginia Apgar Award is given annually by the Section on Perinatal Pediatrics of the American Academy of Pediatrics to an individual whose career has had a continuing influence on the well-being of newborn infants.



### Hogan Elected to UC Fellow of Graduate School



Simon Hogan, PhD, Associate Professor in the Allergy and Immunology Division at Cincinnati Children's, was elected to the University of Cincinnati Fellow of the Graduate School. This organization recognizes distinguished researchers and scholars throughout the University of Cincinnati. Fellows are among the most experienced and accomplished graduate-student mentors. Other DHC members who are Fellows of the Graduate School include: Drs. Gurjit Hershey, David Hildeman, David Hui, Chip Montrose, Steve Potter, Gary Shull, Patrick Tso, Susan Waltz, Alison Weiss, Jim Wells, Susa Wells, Jeffrey Whitsett, and Aaron Zorn.

### Stark Honored as a YWCA Career Woman of Achievement



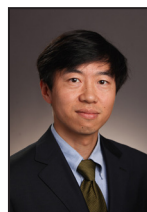
Lori Stark, PhD, ABPP, Director of Behavioral Medicine and Clinical Psychology and the Arnold W. Strauss Endowed Chair for Mentoring, was honored as a YWCA Career Women of Achievement in Cincinnati. The Award was established in 1980 to increase community awareness and appreciation of the diverse contributions of women in the work force and in the community.

### Bezerra Elected to AAP

Jorge Bezerra, MD, DHC Director, was elected to the Association of American Physicians (AAP). He is the Division Director of Gastroenterology at Cincinnati Children's. Dr. Bezerra has joined a highly prestigious organization that was founded for the advancement of scientific and practical medicine. Fewer than 10% of AAP members are pediatric investigators. The following DHC members are AAP members: Drs. Fred Finkelman, Peggy Hostetter, Marc Rothenberg, and Jeffrey Whitsett.

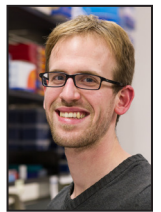


### New DHC Members



Ting Wen, PhD is Instructor in the Division of Allergy and Immunology, Department of Pediatrics at Cincinnati Children's. His research focus on characterizing the intra-epithelial lymphocytes present in the intestines of patients with Eosinophilic Esophagitis.

Maxime Mahe, PhD is Instructor and a new faculty member in the Division of Pediatric General and Thoracic Surgery, Department of Surgery at Cincinnati Children's. Dr. Mahe studies the effects that the enteric nervous system has on the intestinal epithelial barrier.



We congratulate these DHC Members on their outstanding accomplishments.



## Cincinnati Hosts 2015 SPLIT Annual Meeting

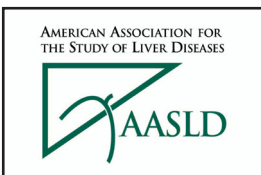
Studies in Pediatric Liver Transplantation (SPLIT) is a community of pediatric hepatologists, transplant surgeons, research coordinators, nurse coordinators, and other health professionals across the United States and Canada working together to advance knowledge in pediatric liver transplantation. SPLIT was established in 1995 as a research registry and has evolved into a multifaceted organization focused on improving outcomes for children receiving liver transplantation.

SPLIT will be celebrating its 20<sup>th</sup> anniversary at its annual meeting on September 24-25 in Cincinnati. Dr. John Bucuvalas, DHC member and Professor in the Division of Gastroenterology, Hepatology, and Nutrition at Cincinnati Children's, is organizing the meeting.



For more information regarding meeting registration visit the SPLIT Annual Meeting [website](#).

## Dr. Bezerra Elected to AASLD Governing Board



Dr. Jorge Bezerra was elected as Councilor and member of the Governing Board of the American Association for the Study of Liver Disease (AASLD), effective January 1, 2016. The Governing Board is responsible for managing the affairs of the AASLD by establishing administrative

policies to promote liver health and quality patient care.

Dr. Bezerra will serve as Councilor for 3 years and will become President of the Association in 2019. He will be the fourth Pediatric Hepatologist to serve as AASLD President.

Congratulations to Dr. Bezerra on this prestigious leadership role.

## Save the Date- 2015 William and Rebecca Balistreri Lecture



Dr. Ronald Sokol will be the 2015 William and Rebecca Balistreri Lecturer for Translational Research in Hepatology. Dr. Sokol is the Arnold Silverman, MD, Endowed Chair in Digestive Health in the Department of Pediatrics at the University of Colorado. He is also the Section Head of Gastroenterology, Hepatology, and Nutrition, Director of Colorado Clinical and Translational Sciences Institute, and Associate

Medical Director of the Pediatric Liver Center and Liver Transplantation Program. Dr. Sokol is a graduate of the Cincinnati Children's Gastroenterology fellowship program. His research focuses on pediatric liver disease and transplantation.

Dr. Sokol will present his research on Tuesday October 20 as part of the DHC Seminar Series. Additionally, Dr. Sokol will participate in "Balistreri Rounds", an opportunity to discuss a complex liver patient case on Wednesday October 21.

## DHC Seminar Series- Summer Break

There will be no seminars in July or August. Our fall seminar series will begin on Tuesday September 15. Seminars are held on Tuesdays at noon in CCHMC Location S Room 6.125.

Light refreshments are provided. The enrichment series includes distinguished speakers from outside the Academic Medical Center as well as conferences by investigators from Cincinnati.

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 Disease Research Core Center in Cincinnati."**

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:	James Wells, PhD	james.wells@cchmc.org
	Aaron Zorn, PhD	aaron.zorn@cchmc.org
Program Manager:	Cynthia Wetzel, PhD	cynthia.wetzel@cchmc.org

# DHC Newsletter

*Bench-to-Bedside Research in Pediatric Digestive Disease*

By: **Cynthia C. Wetzel, PhD**



A Quarterly Publication from the Digestive Health Center

September 2015 Volume 12 Issue 2

## Request for Pilot and Feasibility Applications



The Digestive Health Center (DHC) is accepting applications for pilot projects to conduct basic, translational, patient based, or outcomes research broadly relating to pediatric digestive disease. Funds are intended to allow investigators to collect preliminary data sufficient to support an application for

independent research through traditional NIH mechanisms. Funding for projects will range from \$40,000 to \$50,000 depending on budgetary needs and number of selected applications. Eligible applicants must have a faculty appointment. DHC membership is not required.

Applications are due **Monday December 7, 2015 at 5:00 pm.** The application forms and submission guidelines are available on the [website](#).

For further information contact: Aaron Zorn, PhD, Pilot and Feasibility Program Director at [aaron.zorn@cchmc.org](mailto:aaron.zorn@cchmc.org) or Cindy Wetzel, PhD, DHC Program Manager at [cynthia.wetzel@cchmc.org](mailto:cynthia.wetzel@cchmc.org).

### IN THIS ISSUE:

- Request for Pilot and Feasibility Applications
- New Associate Director
- Annual Scientific Symposium
- Location T Opening
- Weekly Seminars Remain in Location S
- Member Edited Stellate Cell book
- New DHC Member
- Annual SPLIT Meeting
- 2015 Balistreri Lecture
- Upcoming Seminars

## Rohit Kohli, MBBS Joins DHC Leadership



We are pleased to announce that Dr. Rohit Kohli has become an Associate Director of the DHC. He will provide invaluable guidance to the operation of the DHC and will direct the Clinical Component that supports the infrastructure for conducting clinical research.

Dr. Kohli is an Associate Professor in the Division of Gastroenterology, Hepatology and Nutrition at Cincinnati Children's and was a recipient of a DHC Pilot and Feasibility Award.

Dr. Kohli is a NIH R01 funded investigator leading a successful program on Nonalcoholic Steatohepatitis (NASH) and molecular regulation of weight loss induced by bariatric surgery.

## Save the Date - Annual Scientific Symposium

The DHC will host its Annual Scientific Symposium and External Advisory Board Meeting on **Tuesday March 1, 2016**. The day will include a poster session and keynote address by Dr. Philip Tarr from Washington University in St. Louis. Abstracts are due **Friday February 12, 2016**. You do not have to be a member of the DHC to submit an abstract. 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.



## Moved to Location T



Over the summer, clinicians, researchers and staff moved into the new Clinical Sciences Pavilion (Location T) at Cincinnati Children's. The new 15-story, 445,000 square-foot research tower officially opened on June 12 bringing the total space dedicated to pediatric research to over 1.4 million square feet making Cincinnati Children's one of the country's largest pediatric research centers.

The first 3 floors are dedicated to families participating in clinical trials. This centralized space allows families access to receive study-related ex-

ams, assessments, imaging and other tests in a one-stop shop. There is a pharmacy to compound and manage investigational medications, a shipping area where clinical samples can be quickly packed in dry ice, and a metabolic kitchen where families can learn how to prepare foods for children with special dietary needs.

Dr. Kris Justus who is the Vice President of Research Operations and Assistant Director of the Research Foundation at Cincinnati Children's as well as a DHC Internal Advisory Board Member, was part of the team that oversaw the 3 years of construction.

The Division of Gastroenterology, Hepatology, and Nutrition moved their clinical operations and clinical research to the 8th floor and the research laboratories moved to the 9th floor. Dr. Cindy Wetzel, DHC manager, is located in room T9.225 to address your questions regarding the DHC.

## DHC Weekly Seminar Series Will Remain in Location S6.125

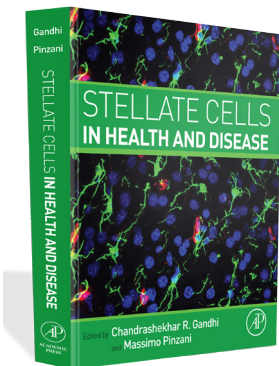
The DHC weekly seminar series will continue to be held in Location S room 6.125. Our fall seminar series will begin on Tuesday September 15 at noon with Dr. Rohit Loomba from the University of California, San Diego.

Our seminar series includes presentations from local and national investigators as well as presentations on cutting edge technology.

See page 4 for a complete schedule.



## New Book Edited by DHC Member Dr. Gandhi



partment of Surgery at the University of Cincinnati.

Drs. Chandrashekhar Gandhi, Cincinnati Children's, and Massimo Pinzani, University College London, edited the book entitled *Stellate Cells in Health and Disease*. Dr. Gandhi is a DHC member and Professor in the Division of Gastroenterology, Department of Pediatrics and De-

The book is a comprehensive reference providing current knowledge and perspectives on the function of stellate cells affecting the liver and other organs. Chapters in the book describe both animal and human research, the relevance of findings from animal research to human pathophysiology, and sections on future directions in the study of liver fibrosis, hepatic biology, and pathobiology. *Stellate Cells in Health and Disease* is published by Academic Press and can be purchased at the [Elsevier Store](#).



## DHC New DHC Member



The DHC is pleased to welcome one new member.

Leah Kottyan, PhD is Assistant Professor in the Center for Autoimmune Genomics and Etiology, Department

of Pediatrics at Cincinnati Children's. Her research focuses on identifying transcriptional regulation of *CAPN14* and *LRRC32* (genes identified in an Eosinophilic Esophagitis risk loci) in esophageal epithelial cells.

## Reminder: Cincinnati is Hosting 2015 SPLIT Annual Meeting

Studies in Pediatric Liver Transplantation (SPLIT) was established in 1995 as a research registry and has evolved into a multifaceted organization focused on improving outcomes for children receiving liver transplantation.

SPLIT will be celebrating its 20<sup>th</sup> anniversary at its annual meeting on September 24-25 in Cincinnati. Dr. John Bucuvalas, a DHC Member and

Professor in the Division of Gastroenterology, Hepatology, and Nutrition at Cincinnati Children's, is organizing the meeting.



For more information regarding meeting registration visit the SPLIT Annual Meeting [website](#).

## 2015 William and Rebecca Balistreri Lecture



Dr. Ronald Sokol will be the 2015 William and Rebecca Balistreri Lecturer for Translational Research in Hepatology. Dr. Sokol is the Arnold Silverman, MD, Endowed Chair in Digestive Health in the Department of Pediatrics at the University of Colorado. He is also the Section Head of Gastroenterology, Hepatology, and Nutrition, Director of Colorado Clinical and Translational Sciences Institute, and Associate

Medical Director of the Pediatric Liver Center and Liver Transplantation Program. Dr. Sokol is a graduate of the Cincinnati Children's Gastroenterology fellowship program. His research focuses on pediatric liver disease and transplantation.

Dr. Sokol will present his research on **Tuesday October 20** as part of the DHC Seminar Series. Additionally, Dr. Sokol will participate in "Balistreri Rounds", an opportunity to discuss a complex liver patient case on Wednesday October 21 at 7:30 am.

## Interested in Becoming a Member?

By becoming a DHC member, you will receive subsidies on many core services and resources. Your orders will receive priority at the cores. Membership is open to all Cincinnati Children's and

University of Cincinnati 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 PHS Grant P30 DK078392 (*insert name of core that you used*) of the Digestive Disease Research Core Center in Cincinnati."**

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:

Rohit Kohli, MBBS

rohit.kohli@cchmc.org

James Wells, PhD

james.wells@cchmc.org

Aaron Zorn, PhD

aaron.zorn@cchmc.org

Program Manager:

Cynthia Wetzel, PhD

cynthia.wetzel@cchmc.org

## Seminar Series- Tuesdays at Noon, Room S6.125

Date	Presenter	Title
9/15/15	Rohit Loomba, MD, MHSc University of California, San Diego	“Innovative Study Design and Novel Imaging in NASH”
9/22/15	Takahisa Nakamura PhD CCHMC: Endocrinology	“Role of Hepatic RNA Silencing in Type 2 Diabetes - Revisiting Metformin”
9/29/15	Jason Blackard, PhD UC: Dept Internal Medicine Division of Digestive Diseases	“Viral Hepatitis in sub-Saharan Africa”
10/6/15	Ting Wen, PhD CCHMC: Allergy and Immunology	“Analysis and Function of Human Esophageal Lymphocytes in Eosinophilic Esophagitis”
10/13/15	Matthew Kofron, PhD CCHMC: Confocal Imaging Facility	“Imaging Methods for DHC Studies Available at CCHMC Confocal Imaging Core”
10/20/15	Ronald Sokol, MD, FAASLD University of Colorado	“Pathogenesis of Parenteral Nutrition Associated Cholestasis: Bugs, Drugs, and Slugs”
10/27/15	Maxime Mahe, PhD CCHMC: Pediatric General and Thoracic Surgery	“Human in vivo Model to Study the Role of a Functional Enteric Nervous System on Intestinal Development and Maturation”
11/3/15	Christopher Mayhew, PhD CCHMC: Pluripotent Stem Cell Facility	“The CCHMC/UC Pluripotent Stem Cell Facility: Providing New Tools for Studying Human Digestive System Development and Disease”
11/10/15	Rajat Madan, MD, PhD UC: Dept Internal Medicine Division of Infectious Diseases	“Studies at the Interface of Metabolism and Infection: Leptin Signaling in C. difficile Infections”
11/17/15	No Conference due to American Association for the Study of Liver Diseases Meeting	
11/24/15	No Conference due to Thanksgiving Holiday Week	
12/1/15	James Collins, PhD University of Florida	“Copper-Dependent Mechanisms Governing Intestinal Iron Absorption”
12/8/15	Sang-Wook Cha PhD CCHMC: Developmental Biology	“Roles of Non-canonical Wnt in Intestinal Morphogenesis”



# DHC Newsletter

*Bench-to-Bedside Research in Pediatric Digestive Disease*

By: Cynthia C. Wetzel, PhD



A Quarterly Publication from the Digestive Health Center

December 2015 Volume 12 Issue 3

## Annual Scientific Symposium Tuesday March 1, 2016

Poster Session: 9:30 to 11:45 am  
Location S Room 1.203 and 1.204  
Keynote Address: Phillip Tarr, MD  
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 March 1, 2016. The day will include a poster session and keynote address by Dr. Phillip Tarr from Washington University School of Medicine at St. Louis. 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) Chronic Liver Disease
- 2) Inflammatory and Diarrheal Diseases
- 3) Obesity and the Digestive System
- 4) Development and Digestive Diseases

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 12, 2016 to [cynthia.wetzel@cchmc.org](mailto:cynthia.wetzel@cchmc.org).

### IN THIS ISSUE:

- Annual Scientific Symposium
- Members' Research Receive National Attention
- Keystone Symposia
- Changes in NIH Applications
- Understanding Research Pathology Charges
- New Subsidy for Fluidigm C1 Single-Cell RNA-Seq
- DHC Competitive Renewal Submission Summer 2016
- Member Highlights
- Upcoming Seminars

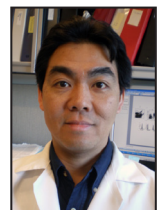
## Members' Research Receive National Press



Dr. Inge lead  
author of study

The research work of DHC members Drs. Thomas Inge, Michael Helmrath, Meg Zeller, and Stavra Xanthakos was published in the November 6 issue of *The New England Journal of Medicine*. The results showed that adolescents who underwent bariatric surgery had significant improvements in weight, metabolic health, and quality of life at 3 years post-procedure. The research team is part of Teen-LABS (Longitudinal Assessment of Bariatric Surgery), a multi-center clinical study examining the effects of bariatric surgery which is funded by the National Institute of Diabetes and Digestive and Kidney Disease. Teen-LABS is the largest and most comprehensive analysis of bariatric surgery in adolescents.

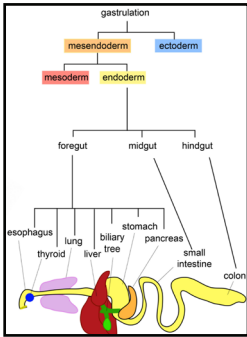
Additionally, the research work of DHC members Drs. Yui-Hsi Wang, Artem Barski, Fred Finckelman, Simon Hogan, and Marc Rothenberg was published in *Immunity*. They discovered a new cell type, an IL-9-producing mucosal mast cell, that produces large amounts of interleukin-9 (IL-9) which amplifies anaphylactic shock in response to ingested food. This study demonstrates that in addition to immune antibody immunoglobulin E (IgE) one needs IL-9 to trigger a severe food allergy response. Their findings will provide a therapeutic target for food allergy treatment.



Dr. Wang lead  
author of study

Congratulations to both research teams for having their work receive national attention.

## Keystone Symposia - Stem Cells & Regeneration in Digestive Organs



Dr. James Wells, DHC Associate Director, is part of the Scientific Organizers for the Keystone Symposia on Stem Cells and Regeneration in the Digestive Organs. This is a joint meeting on [Islet Biology: From Cell Birth to Death \(X5\)](#).

The Stem Cell and Regeneration in Digestive Organs Symposia will bring together a broad range of experts who are investigating stem cells from interrelated fields of the digestive system for the first time.

Session topics include:

- Gastrointestinal Lineages from Pluripotent Stem Cells
- Disease Modeling
- Stem and Progenitor Cells in Homeostasis
- Translational and Clinical Applications
- Hurdles to Translation

The meeting will take place in Keystone, Colorado from March 13-17, 2016. The abstract deadline is December 15, 2015 and the discounted registration deadline is January 14, 2016.

Visit the Symposia [website](#) for more information and online registration.

## Changes to NIH Application Forms and Instructions

Periodically the National Institutes of Health (NIH) will modify the application forms and instructions to accommodate changes in policy, new business needs, and occasionally to decrease the amount of information required to be submitted.

Below is a summary of the changes to NIH grant applications:

- An emphasis is placed on scientific rigor by including experimental details so others may reproduce and extend their research findings.
- Inclusion of how relevant biological variables, such as sex, are factored into studies using vertebrate animals and human subjects in the Significance and Approach Sections of the Research Strategy

- Requirement to include a summary describing authentication of key biological and/or chemical resources.
- Age of a child will be defined as individuals under the age of 18 years old instead of 21 years old for the Inclusion Policy.
- Requiring less information in the Vertebrate Animal Section to remove redundancy with information required at the institution level.
- Decrease in the number of data tables required for Training Grant submissions.
- New application forms will be required for due dates of May 25, 2016 and beyond.



For detailed information regarding all of these changes visit the NIH Grants & Funding [website](#).

## Understanding Pathology Research Core Technician Charges

Cincinnati Children's Pathology Research Core provides researchers with state-of-the-art morphology services. The Core is able to accommodate specialized work requests. When a request falls outside routine services, the Core needs to charge for Technician Time. Some examples of Special Requests include:

- Sectioning with the investigator to look for specific landmarks
- Modified procedures that results in additional steps to accommodate custom detection
- Digital Scanning that requires extensive data

annotation

- Partial services, such as coverslip only application, which would not incur a full charge

If you have questions as to whether your request requires additional technician time, please discuss your project with the Pathology Research Core staff in advance for clarification.

Remember the DHC subsidizes the cost of histological services and interpretation. For more information contact:

Meredith Taylor at [meredith.taylor@cchmc.org](mailto:meredith.taylor@cchmc.org) or 513-636-3478.

## New Subsidy for Fluidigm C1 Single-Cell RNA-Seq Analysis

The DHC leaders worked with Dr. Steve Potter, Director of the Cincinnati Children's Gene Expression Core, to support Fluidigm C1 Single-Cell RNA-Seq Analysis. This is a powerful technology that enables a unique look at dominant molecular

signatures for individual cell and cell groups.

The DHC will provide 25% of the total cost for the service.

For more information contact Shawn Smith at [shawn.smith@cchmc.org](mailto:shawn.smith@cchmc.org) or 513-636-0290.

## DHC Competitive Renewal Due Summer 2016

Next summer the DHC leadership will be submitting the DHC competitive renewal application to NIH. In the upcoming months Jill Soldano, DHC administrative assistant, will be contacting DHC Members requesting information regarding their research programs.



Let's work together to showcase the strength of our research base, the high quality of core services, and the rich scientific environment at Cincinnati Children's and the University of Cincinnati.

## DHC Member Highlight



Kevin Hommel, PhD, Associate Professor in the Division of Behavioral Medicine and Clinical Psychology, Department of Pediatrics at Cincinnati Children's, has accepted the in-

itation to serve on the NIH Behavioral Medicine, Interventions and Outcomes Study Section.

Congratulations on this outstanding accomplishment!

## DHC New DHC Member

The DHC is pleased to welcome one new member.

Soon Shin, PhD is an Assistant Professor in the Division of Pediatric General and Thoracic Surgery, Department of Pediatrics at Cincinnati Children's. She is a member of the Liver Tumor

Program.

Dr. Shin's research focuses on deciphering the molecular basis underlying liver cancer, with a focus on adult hepatic progenitor cells and fetal hepatoblasts.



## Interested in Becoming a Member?

By becoming a DHC member, you will receive subsidies on many core services and resources. Your orders will receive priority at the cores. Membership is open to all Cincinnati Children's and

University of Cincinnati 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 PHS Grant P30 DK078392 (*insert name of core that you used*) of the Digestive Disease Research Core Center in Cincinnati."**

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

Director:

Jorge Bezerra, MD

[jorge.bezerra@cchmc.org](mailto:jorge.bezerra@cchmc.org)

Associate Directors:

James Wells, PhD

[james.wells@cchmc.org](mailto:james.wells@cchmc.org)

Aaron Zorn, PhD

[aaron.zorn@cchmc.org](mailto:aaron.zorn@cchmc.org)

Program Manager:

Cynthia Wetzel, PhD

[cynthia.wetzel@cchmc.org](mailto:cynthia.wetzel@cchmc.org)



## Seminar Series- Tuesdays at Noon, Room S6.125

Date	Presenter	Title
1/12/16	Frank Anania, MD, FACP Emory University	“Blue Skies and Molars: Tales of Discovery in a Liver Disease Laboratory”
1/19/16	Fei Wang, PhD UC: Dept Pathology & Lab Medicine	“Dietary Fat: Friend or Foe for Postprandial Glycemia”
1/26/16	Jorge Bezerra, MD CCHMC: Gastroenterology	“The Immune System and Biliary Atresia: Friend or Foe?”
2/2/16	Sherry Thornton, PhD CCHMC: Flow Cytometry Core	“The Research Flow Cytometry Core: Providing Cutting-Edge Technologies for Single Cell Analysis”
2/9/16	Sohail Husain, MD Children’s Hospital of Pittsburgh	“Targeting Pancreatic Calcineurin to Prevent Post-ERCP Pancreatitis”
2/16/16	Thomas Inge, MD, PhD, FACS, FAAP CCHMC: General and Thoracic Surgery	“Weight Loss and Health Status 3 Years after Bariatric Surgery in Adolescents”
2/23/16	Soona Shin, PhD CCHMC: General and Thoracic Surgery	“Understanding the Role of Foxl1+ Hepatic Progenitor Cells in Liver Cancer”
3/1/16	DHC Annual Scientific Symposium Keynote Address by: Philip Tarr, MD Washington University, St. Louis “The Gut Microbiome: A New Vista on Neonatal Health” <b>*Distinct Location: Research Auditorium</b>	
3/8/16	Yana Zavros, PhD UC: Dept Molecular and Cellular Physiology	TBA
3/15/16	Anil Jegga, DVM, Mres and Rebekah Karns, PhD CCHMC: Bioinformatics Core	“Overview of Bioinformatic Tools for Transcriptome Analysis”
3/22/16	Samir Softic, MD Boston Children’s Hospital	“Dietary Fructose, but not Glucose, Accelerates, NAFLD Development by Supporting Hepatic novo Lipogenesis and Impairing Mitochondrial Beta-oxidation”
3/29/16	Alison Weiss, PhD UC: Dept Molecular Genetics, Biochemistry, and Microbiology	“Of Mice or Men? Human Intestinal Organoids to Study-limited Enteric Diseases”
4/5/16	Leah Kottyan, PhD CCHMC: Center for Autoimmune Genomics and Etiology	“Identifying Causal Genetic Mechanisms that Increase Risk of Eosinophilic Esophagitis”

# DHC Newsletter

*Bench-to-Bedside Research in Pediatric Digestive Disease*

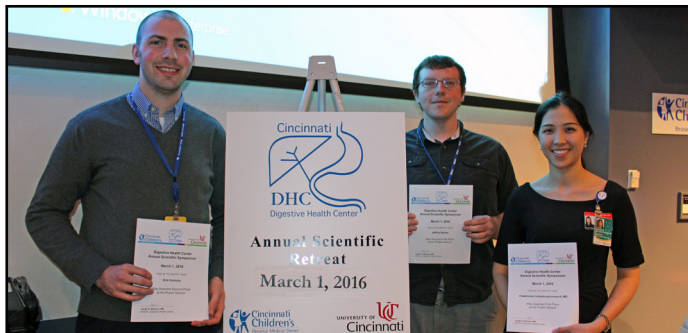
By: Cynthia C. Wetzel, PhD



A Quarterly Publication from the Digestive Health Center

March 2016 Volume 12 Issue 4

## Highlights from the Annual Scientific Symposium



Poster Winners from  
Left to Right:  
Erik Karmele,  
Jeffrey Rymer, and  
Chatmanee  
Lertudomphonwanit

## IN THIS ISSUE:

- Highlights from Scientific Symposium
- Dr. Perrin from NIDDK Visits
- New Associate Director
- DHC Competitive Renewal Submission July 2016
- Member Highlights
- New DHC Members
- Upcoming Seminars

The Digestive Health Center (DHC) held its Annual Scientific Symposium on Tuesday, March 1. Phillip Tarr, MD from Washington University School of Medicine at St. Louis presented the keynote address “The Gut Microbiome: A New Vista on Neonatal Health”. A total of 40 posters were displayed by researchers from Cincinnati Children’s and University of Cincinnati. The posters represented 9 Divisions in the Department of Pediatrics and 6 Departments within the University of Cincinnati, College of Medicine. Additionally, there were 9 posters displayed highlighting research core services. Prizes were awarded for the best presented posters:

**Tie for First Place:** Chatmanee Lertudomphonwanit, MD (Clinical Observer, Cincinnati Children’s, Gastroenterology, member of Dr. Jorge Bezerra’s lab) for “Identification of Novel Biomarker Distinguishing Patients with Biliary Atresia and Intrahepatic Cholestasis and Translational Studies in the Mouse Model”. Jeffrey Rymer (Graduate Student, Cincinnati Children’s, Allergy and Immunology, member of Dr. Marc Rothenberg’s lab) for “CAPN14 Localizes from the Cytoplasm to the Nucleus Upon PMA with Ionomycin Treatment and Cellular Differentiation”.

**Second Place:** Erik Karmele (Research Assistant, Cincinnati Children’s, Center for Autoimmune Genomics and Etiology, member of Dr. Stephen Waggoner’s lab) for “Trusting Their Gut Instinct: Innate Lymphoid Cells Utilize Cytolytic Mechanisms to Regulate IgA”.

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

## Peter Perrin, PhD from NIDDK Visits the DHC



Peter Perrin, PhD

Dr. Peter Perrin, Director, Digestive Disease Centers Program, Division of Digestive Diseases and Nutrition of the National Institute of Diabetes and Digestive and Kidney Disease (NIDDK) at the National Institutes of Health visited the DHC on March 2. Drs. Jorge Bezerra and Cindy Wetzel presented an overview of the DHC to Dr. Perrin and gave him a tour of Cincinnati Children’s. Dr. Perrin met with junior investigators as well as the directors of the DHC Cores and Dr. Aaron Zorn, Director of the DHC Pilot and Feasibility Program.

This was a great opportunity to showcase the rich scientific environment and state-of-the-art core services of the DHC.

## Photos and Highlights from Annual Scientific Symposium Continued

We would like to specially thank: Jill Soldano, Talithia Bankston, Ruth Castle, Angie Cain, GiGi DiPuccio, and Joan Kasten for their superb organizational efforts and assistance with the Annual Scientific Symposium.



Left to Right:  
Jill Soldano, Ruth Castle, GiGi DiPuccio, and Angie Cain.  
(Not pictured Talithia Bankston and Joan Kasten)

We also thank those who reviewed posters:  
Drs. Blackard, Cha, Chougnat, Divanovic, Fulkerson, Haslam, Helmraht, Hildeman, Hoebe, Hogan, Hommel, Huppert, Inge, Kaplan, Kohli, Kottyan, Madan, Mahe, Martin, Miethke, Minar, Moore, Naren, Perez-Tilve, Rothenberg, Shin, Shivakumar, Steinbrecher, Timchenko, Way, Yacyshyn, and Yin.

*Thanks to the judges and outstanding organizers!*



## Heidi Kalkwarf, PhD, RD Joins DHC Leadership



We are pleased to announce that Dr. Heidi Kalkwarf has become an Associate Director of the DHC. She will direct the Clinical Component that supports the infrastructure for conducting clinical research.

Dr. Kalkwarf is a Professor in the

Division of Gastroenterology, Hepatology and Nutrition at Cincinnati Children's. She is a nutritional epidemiologist developing the dietary recommendations to optimize health, particularly bone health. Dr. Kalkwarf is replacing Dr. Rohit Kohli who has become the Medical Director of the Liver Transplant Program.

## DHC NIH Competitive Renewal Due July 7

The Request for Application (RFA) Notice was released for the DHC NIH competitive renewal. The application is due July 7. The External Advisory Board gave the DHC leadership valuable feedback regarding our application.

Jill Soldano, DHC administrative assistant, will be contacting all DHC Members requesting information regarding their research program in the upcoming weeks. Please respond to her request in a timely manner.

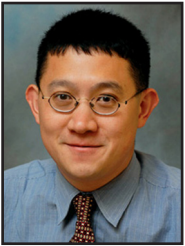


Let's work together to showcase the strength of our research base, the high quality of core services, and the rich scientific environment at Cincinnati Children's and the University of Cincinnati.



## DHC Member Highlights and New DHC Member

### Way Receives E. Mead Johnson Award and Drukier Prize



Sing Sing Way, MD is the recipient of the 2016 E. Mead Johnson Award for Pediatric Research. This award is considered one of the most prestigious honors in pediatric research. Dr. Way is a member in the Division of Infectious

Diseases at Cincinnati Children's. Current DHC members that have received the E. Mead Johnson Award include Drs. Peggy Hostetter, Marc Rothenberg, and Jeff Whitsett.

Additionally, Dr. Way is the recipient of the inaugural Gale and Ira Drukier Prize in Children's Health Research. This award honors an early career pediatrician who has made important contributions towards improving the health of children.

### Kohli's New Role at NASPGHAN

Rohit Kohli, MBBS has been appointed as the Chair of the Research Committee of the North American Society for Pediatric Gastroenterology, Hepatology and Nutrition (NASPGHAN). In this role, Dr. Kohli will oversee implementing the research mission and goals of the NASPGHAN society. He is a member in the Division of Gastroenterology at Cincinnati Children's.



### Kalkwarf Serves on NIH Study Section



Heidi Kalkwarf PhD, RD has accepted the invitation to serve on the NIH Neurological, Aging and Musculoskeletal Epidemiology Study Section. She is a member in the Division of Gastroenterology at Cincinnati

Children's.

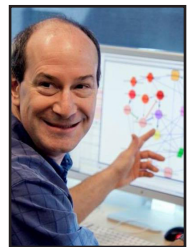
### Heubi Receives Entrepreneurial Award



DHC member James Heubi, MD and Kenneth Setchell, PhD received the Cincinnati Children's Entrepreneurial Achievement Faculty Award for developing the FDA approved drug Cholbam. This drug is used for the treatment of defects in bile acid metabolism.

### Aronow Honored with Hutton Chair

Bruce Aronow, PhD is the first recipient of the John J. Hutton Endowed Chair for Biomedical Informatics. Dr. Aronow is a member in the Division of Bioinformatics at Cincinnati Children's. Dr. Aronow has been a leader in establishing the field of computational biology.



### New DHC Members

Eitaro Aihara, PhD is an Instructor in the Department of Molecular and Cellular Physiology at the University of Cincinnati. His research focuses on the adverse effects that *H. pylori* and clinical drugs have on gastric epithelium healing.



Takanori Takebe, MD is an Assistant Professor and a new faculty member in the Divisions of Gastroenterology and Developmental Biology at Cincinnati Children's. Dr. Takebe is an exceptional pioneer in the field of regenerative medicine, generating liver, digestive, and non-digestive organoids from induced Pluripotent Stem Cells (iPSC).

We congratulate these DHC Members on their outstanding accomplishments.

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 Disease Research Core Center in Cincinnati."**

## Seminar Series- Tuesdays at Noon, Room S6.125

Date	Presenter	Title
3/22/16	Samir Softic, MD Boston Children's Hospital	"Dietary Fructose, but not Glucose, Accelerates, NAFLD Development by Supporting Hepatic novo Lipogenesis and Impairing Mitochondrial Beta-oxidation"
3/29/16	Alison Weiss, PhD UC: Dept Molecular Genetics, Biochemistry, and Microbiology	"Of Mice or Men? Human Intestinal Organoids to Study-limited Enteric Diseases"
4/5/16	Leah Kottyan, PhD CCHMC: Center for Autoimmune Genomics and Etiology	"Identifying Causal Genetic Mechanisms that Increase Risk of Eosinophilic Esophagitis"
4/12/16	Nadia Ameen, MBBS Yale University	"Bench to Bedside: Unraveling Mysteries of Microvillus Inclusion Diseases"
4/19/16	Amy Taylor, MD CCHMC: Gastroenterology	"Regulatory T Cells, Bile Acids, and Fibrosis: Lessons from the Mdr2 Knockout Model of Sclerosing Cholangitis"
4/26/16	Yui-Hsi Wang, PhD CCHMC: Allergy and Immunology	"Type-2 Mucosal Mast Cells and Gastrointestinal Allergy"
5/3/16	Stephanie Oliveira, MD CCHMC: Gastroenterology	"Methyl Donor Deficiency in the Pathogenesis of Environmental Enteropathy"
5/10/16	Senad Divanovic, PhD CCHMC: Immunobiology	"Immunopathogenesis of Non-Alcoholic Fatty Liver Disease"
5/17/16	Einar Hafberg, MD CCHMC: Gastroenterology	"FIC1 Disease Modeling with Human Intestinal Organoids"
5/24/16	No Seminar due to Digestive Disease Week Annual Meeting	
5/31/16	Ashish Dhawan, MD CCHMC: Gastroenterology	"Vitamin D, Gene Expression, Intestinal Dysbiosis in Inflammatory Bowel 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:	Heidi Kalkwarf, PhD, RD	heidi.kalkwarf@cchmc.org
	James Wells, PhD	james.wells@cchmc.org
	Aaron Zorn, PhD	aaron.zorn@cchmc.org
Program Manager:	Cynthia Wetzel, PhD	cynthia.wetzel@cchmc.org