Division Introduction

As the major program in North Texas caring for children with gastrointestinal (GI) and liver disorders, the Division of Pediatric Gastroenterology at UT Southwestern provides patient-centered care to an ever expanding population. The Division's mission is to improve the lives of children with gastrointestinal and liver diseases through quality care, innovative clinical programs, education and training of healthcare providers, and state-of-the-art basic, translational and clinical research.

Drew Feranchak, M.D.

Under the direction of Drew Feranchak, M.D., Division Chief, this nationally recognized division includes distinguished faculty focusing on diverse areas of gastroenterology, including molecular biology of cholestatic liver disease, chronic viral hepatitis, neurogastroenterology, inflammatory bowel disease, therapeutic endoscopy, intestinal rehabilitation and liver transplantation. Currently the Division is comprised of 22 faculty members (21 physicians and one PhD scientist) who provide outstanding care to patients with gastrointestinal and liver disorders, including inpatient, outpatient and procedural services. In addition, the Division's physicians provide supervision to 15 Advance Practice Providers (Physician Assistants or Nurse Practitioners).

The Division, ranked 16th in the nation by U.S. News and World Reports in 2015, provides clinical services and medical leadership at four practice sites:

- Children's Medical Center Dallas
- Children's Health™ Specialty Center Plano
- Children's Health™ Specialty Center Southlake
- Texas Health Presbyterian Hospital

The clinical activity of the Division is centered on a high quality and volume service, with more than 20,000 outpatient visits, 2,000 inpatient admissions and 3,000 procedures per year.

All these functions are organized in a programmatic fashion into 11 distinct clinical programs:

- General Gastroenterology
- Hepatology/Liver Transplant
- Inflammatory Bowel Disease
- Intestinal Rehabilitation and Short Bowel Disease
- Neuro-Gastroenterology
- Aerodigestive Program
- Cystic Fibrosis Center
- Therapeutic Endoscopy/ Gastroenterology Laboratory
- Eosinophilic/Allergic disorders
- Celiac Disease
- Pancreatic Disorders

In 2015, the Division of Pediatric Gastroenterology was ranked 16th in the nation by U.S. News and World Report.

Faculty

Three new faculty members joined the Division in 2015, Drs. Bhaskar Gurram, Luis Sifuentes-Dominguez and Teena Sebastian, bringing the total to 22 full-time pediatric gastroenterology faculty members.

Bhaskar Gurram, M.B.B.S., M.D.

Assistant Professor

M.B.B.S.

Jawahar Lal Nehru Medical College, Karnatak University, Belgaum, Karnataka, India, 2001

Postdoctoral Training

M.D. and Residency, Pediatrics

All India Institute of Medical Sciences (AAIMS), Ansara Nagar, New Delhi, India, 2002-2005

Internship and Residency, Pediatrics

Children's Hospital of Michigan, Wayne State University, Detroit, 2007-2010

Fellowship, Pediatric Gastroenterology

Children's Hospital of Wisconsin, Milwaukee, 2010-2013

Dr. Gurram was an Assistant Professor of Pediatrics at Medical College of Wisconsin, Milwaukee, before joining the faculty at UT Southwestern in 2015. He has clinical expertise in gastrointestinal manifestations of immune deficiency, immune dysregulation disorders and inflammatory bowel diseases (IBD). His research interests include the evaluation of early-onset inflammatory bowel disease, treatment of inflammatory bowel disease and gastrointestinal manifestations of immunodeficiency. Dr. Gurram is actively involved in teaching medical students, residents, fellows and nurses.

Teena Sebastian, M.D.

Instructor

M.B.B.S.

St. Johns Medical College, Bangalore, India, 2007

Postdoctoral Training

Residency, Pediatrics

Albert Einstein Medical Center, Philadelphia, PA, 2009-2012

Fellowship, Pediatric Gastroenterology

George Washington University/Children's National Medical Center, Washington, DC, 2012-2015

After completing her Pediatric Gastroenterology Fellowship, Dr. Sebastian joined the faculty at UT Southwestern. Her fellowship research involved studying the mechanisms used by Foxp3+ T regulatory cells in controlling inflammatory bowel disease. Clinical interests include motility disorders, hepatology and the GI manifestations of the 22q syndrome.

The Division has 22 distinguished faculty focused on diverse areas of gastroenterology, including molecular biology of cholestatic liver disease, chronic viral hepatitis, neurogastroenterology, inflammatory bowel disease, therapeutic endoscopy, intestinal rehabilitation and liver transplantation.

Luis F. Sifuentes-Dominguez, M.D.
Instructor

M.D.
Universidad de LaSalle, Mexico City, Mexico, 2005
Postdoctoral Training
Residency, Pediatrics
Hospital Infantil de México Federico Gómez, Mexico City, Mexico, 2005-2008
Residency, Pediatrics
University of Connecticut School of Medicine, 2010-2012
Fellowship, Pediatric Gastroenterology
UT Southwestern, 2012-2015

Dr. Sifuentes joined the faculty at UT Southwestern after completing his Pediatric Gastroenterology Fellowship. His research focus is in identifying the genetic causes of early onset Inflammatory Bowel Disease (IBD). By utilizing genomic and molecular approaches he is unraveling the pathways involved in the pathogenesis of IBD. He has won awards for his research and is the recipient of the Caruth Scholar Research award from the Children's Health Foundation.

Honors / Awards

John Andersen

- Best Doctors in America
- Best Pediatric Specialists in Dallas, *D Magazine*
- Texas Super Doctors, *Texas Monthly Magazine*
- Top Doctors in North Texas, *Dallas Morning News*

Brad Barth

- Best Pediatric Specialists in Dallas, *D Magazine*
- Elected President of the Medical and Dental Staff, Children's Health™

Andrew Feranchak

- Best Doctors in America
- Texas Super Doctors, *Texas Monthly Magazine*
- Elected to Society of Pediatric Research (SPR) council

Ashish Patel

- Best Pediatric Specialists in Dallas, *D Magazine*

Norberto Rodriguez-Baez

- Best Pediatric Specialists in Dallas, *D Magazine*

Rinarani Sanghavi

- Promotion to Associate Professor of Pediatrics

Meghana Sathe

- Best Pediatric Specialists in Dallas, *D Magazine*

Luis Sifuentes-Dominguez

- Excellence in Research Award, Senior Fellows' Research Day
- W. W. Caruth Scholar, Children's Medical Center Foundation

Invited Lectures

Brad Barth

- NASPGHAN Annual Conference, Washington, DC, October 2015
  - *"Acute and Chronic Pancreatitis: Management and Beyond"*
  - *"Hands-on Endoscopy Course: Single Balloon Enteroscopy"*

Edaire Cheng

- American Gastroenterological Association Postgraduate Course, Washington, DC, May 2015
  - *"Microscopic Esophagitis: Is it Reflux or Eosinophilic?"*
- 13th OESO World Congress: The Esophagiome, Monaco, August 2015
  - *"Effect of Omeprazole on Eotaxin-3"*
  - *"What Causes Dysphagia in EoE?"*
  - *"What are the Emerging Treatment Options in EoE?"*
- Mount Sinai Child Health Research Seminar, New York, September 2015
  - *"EoE, GERD, and PPI-REE: The Confounding Trio"*
- NASPGHAN Annual Conference, Washington, DC, October 2015
  - *"The EoE Hunger Games: PPI-REE is Catching Fire!"*

Norberto Rodriguez-Baez

- NASPGHAN/Nestlé First Year Fellows Conference, Fort Lauderdale, FL, January 2015
  - *"Make Friends No Enemas – GI Quiz Show"*
  - *"Clinical Research Exercise: Choosing a Research Topic"*
- University of Florida College of Medicine/Shands Children's Hospital, Gainesville, FL, June 2015
  - "Are You Smarter than a 5th Grader?" (Pediatric Residents Noon Conference)
  - *"Make Friends No Enemas: The Liver Edition"* – Quiz Show (Pediatric Gastroenterology Fellowship Noon Conference)

Rina Sanghavi

- NASPGHAN Annual Conference, Washington, DC, October 2015
  - Moderator, Session on Motility

Meghana Sathe

- NASPGHAN/Nestlé First Year Fellows Conference, Fort Lauderdale, FL, January 2015
  - *"Top 10 Ways to Achieve Work-Life Balance"*
- NACFC Annual Conference, Phoenix, AZ, October 2015
  - *"Utilization of Total Parental Nutrition and Lipids in Pediatric Cystic Fibrosis Patients"*
- NASPGHAN Annual Conference, Meet the Professor Breakfast, Washington, DC, October 2015
  - *"Management of GI Manifestations of Cystic Fibrosis"*

Oral & Poster Presentations

Brad Barth

- American Gastroenterological Association Meeting – Digestive Disease Week, Washington, DC, May 2015
  - Oral Presentation: *"Risk Factors and Disease Burden in Pediatric Acute Recurrent and Chronic Pancreatitis: Report from the INSPPIRE Consortium"*
  - Oral Presentation: *"ERCP in Younger versus Older Children: Initial Report from the Multicenter Pediatric ERCP Database Initiative"*
- NASPGHAN Annual Conference, Washington , DC, October 2015
  - Instructor for Circulating Endoscopy Expert and Clipping Stations
  - Poster Presentation: *"EUS Assisted Rendezvous Procedure for Complete Esophageal Stricture in a Pediatric Patient"*
  - Poster Presentation: *"Very Early Onset Acute Recurrent and Chronic Pancreatitis are Associated with PRSS1 or CTRC Mutations"*

Edaire Cheng

- American Gastroenterological Association Meeting – Digestive Disease Week, Washington, DC, May 2015
  - Oral Presentation: *"Omeprazole and Fluticasone Inhibit IL-13-stimulated Eotaxin-3 Expression by Esophageal Epithelial Cells through Different Mechanisms and with Additive Effects: Rationale for Combining PPIs with Topical Steroids for EoE Patients"*
  - Oral Presentation: *"A STAT6 Inhibitor (AS1517499) and a Tyrosine Kinase Inhibitor (Leflunomide) Block IL-13/STAT6 Signaling and Eotaxin-3 Expression in Esophageal Fibroblasts and Epithelial Cells: Promising Agents to Improve Inflammation and Prevent Fibro Stenosis in EoE"*
- NASPGHAN Annual Conference, Washington , DC, October 2015
  - Poster Presentation: *"The Prevalence of Lamina Propria and Subepithelial Fibrosis in Mucosal Biopsies With Esophageal Eosinophilia"*

Qin Li

- North American Cystic Fibrosis Conference, NACFC , Phoenix, AZ, October 2015
  - Oral Presentation: *"CFTR Knockout Mice Exhibit Abnormal Constitutive and Bile Acid-stimulated Bile Flow and Biliary ATP Concentrations"*

David Troendle

- NASPGHAN Annual Conference, Washington, DC October 2015
  - Poster Presentation: *"EUS Assisted Rendezvous Procedure for Complete Esophageal Stricture in a Pediatric Patient"*
  - Poster Presentation: *"Very Early Onset Acute Recurrent and Chronic Pancreatitis are Associated with PRSS1 or CTRC Mutations"*
- American Society for Gastrointestinal Endoscopy Meeting – Digestive Disease Week, Washington, DC, May 2015
  - Poster Presentation: *"Risk Factors and Disease Burden in Pediatric Acute Recurrent and Chronic Pancreatitis: Report From the INSPPIRE Consortium"*
  - Poster Presentation: *"Survival Analysis of Veteran Patients with Resectable Pancreatic Tumors With and Without Surgery"*

Brad Barth and David Troendle

- NASPGHAN Annual Conference, Washington, DC October 2015
  - Poster Presentation: *"ERCP is Safe and Effective in Patients Under One Year of Age"*

- Oral Presentation: *"Pediatric ERCP in the Setting of Acute Pancreatitis: A Report from the Multicenter Pediatric ERCP Database Initiative (PEDI)"*

Education and Training

The Division continues to provide new and innovative training strategies for students, residents, fellows and junior faculty, as well as educational programs to the local community and nationally.

The three-year, ACGME-accredited fellowship program, directed by Drs. Norberto Rodriguez and Meghana Sathe, provides comprehensive training for six gastroenterology fellows (two annually). The training program is dynamic and innovative, offering individualized training tracks in quality improvement, therapeutic endoscopy, motility and clinical and basic research. The first-time passing rate for the ABP-certified Pediatric Gastroenterology board exam for graduating fellows is 100%, and the majority of graduates go on to hold faculty appointments.

Focused areas of research by the Division's current fellows include:

- Hepatobiliary Transport Physiology
- Pathogenesis of Eosinophilic Esophagitis
- Mechanisms of Pruritus Associated with Chronic Liver Disease
- Metabolic Liver Disease
- Immunobiology, Genetics and Epidemiology of Pediatric IBD

Research Activities

Funded research spans a wide range of important areas in both basic science and clinical investigation. The Division has many active ongoing research studies including several National Institutes of Health (NIH)-sponsored studies to understand the origins of childhood liver, esophageal and intestinal diseases. The Division is participating in more than 30 ongoing IRB-approved clinical trials, including several national, multicenter studies evaluating treatments for pancreatic disease, Cystic Fibrosis, inflammatory bowel disease, hepatitis and liver failure.

Liver Research

The Liver Research Laboratory, headed by Dr. Drew Feranchak, is investigating basic mechanism of bile formation and hepatobiliary transport, the regulatory role of purinergic signaling in biliary secretion and mechanisms of fatty liver disease. Dr. Feranchak, a NIH-funded investigator, is recognized internationally for his innovative approaches to elucidating the basic mechanisms regulating bile formation and signaling within the liver. Dr. Feranchak's research is pivotal, since it is very likely that therapeutic interventions for cholestatic liver disease will emerge by targeting these signaling pathways.

The Liver Research Laboratory also includes Drs. Qin Li and Amal Dutta who are investigating novel targets for the treatment of cholestatic liver diseases such as those associated with Cystic Fibrosis. The lab is supported by Charles Kresge, Lab Manager, and provides training opportunities for post-doctoral fellows, residents and students.

- Dr. Norberto Rodriguez-Baez is the principle site investigator for a national, multicenter, NIH-supported study examining the causes for fulminant hepatic failure in children, as well as studies evaluating the best treatment strategies for children with hepatitis B and C.

- Dr. Charina Ramirez's research focuses on metabolic liver disease including Niemann-Pick type C and non-alcoholic fatty liver disease (NAFLD). She is conducting a novel trial evaluating the effects of specialized diets in the treatment of childhood fatty liver disease.

Gastroenterology Research

The second general area of active research involves inflammation in the GI tract including, studies to understand the pathogenesis of eosinophilic esophagitis and inflammatory bowel disease (IBD).

- Dr. Edaire Cheng is a NIH-funded investigator unraveling the basic causes of eosinophilic esophagitis. She has developed novel cell and mouse models which are providing new insights into this disease.
- Dr. Luis Sifuentes is studying basic mechanisms of inflammatory bowel disease. He is supported by a departmental, NIH-sponsored, Child Health Research Career Development Award and is working closely with Dr. Ezra Burnstein in the Department of Internal Medicine's Division of Gastroenterology at UT Southwestern to understand the molecular basis of early-onset IBD.
- Dr. Ashish Patel is the site leader for the multicenter collaborative known as Improve Care Now. He has been instrumental in the development of a nutritional management algorithm and is leading treatment trials in patients with IBD. Dr. Patel is also the primary investigator on multiple grants, including funding from the NIH, CCFA and Broad Foundation. He also leads several industry supported trials evaluating novel therapies for pediatric IBD.
- Dr. Rina Sanghavi, an expert in neurogastroenterology, is exploring new therapies for constipation, motility disorders, and aerodigestive disorders in children. Studies are underway exploring the contribution of the intestinal microbiome to GI motility.
- Dr. Brad Barth, Director of Therapeutic Endoscopy at Children's, is studying therapeutic interventions for complex childhood hepatobiliary and pancreatic disorders.
- Dr. David Troendle's research focuses on advanced endoscopic training and interventional endoscopic approaches for the treatment of pancreatic disease.

Clinical Activities

The nationally recognized clinical programs of the Division of Gastroenterology are housed at Children's Medical Center Dallas with satellite activity at Children's at Legacy, Southlake, and THR. In the patient-centered environment, physicians are joined by nurse practitioners, physician assistants, child psychologists, dieticians, speech therapists, child life specialists, a social worker, an enterostomal therapist/educator, and a care coordinator to provide multidisciplinary, comprehensive state-of-the-art care for children with virtually any gastrointestinal or liver problem.

Gastroenterology Clinical Laboratory

The gastroenterology laboratory staff of six nurses and two endoscopy technicians supports not only routine endoscopic procedures, but also advanced and therapeutic endoscopy, including ERCP, EUS, balloon enteroscopy and capsule endoscopy and a full range of motility procedures, including anorectal, esophageal, antroduodenal, small bowel and colonic.

Specialized Programs

The Division also provides several specialized clinical programs. Referrals are accepted for all of the following programs and a Gastroenterology physician is on call daily to take calls from physicians.

Neurogastroenterology Program

Under the direction of Dr. Rina Sanghavi, this program provides comprehensive care for children with motility disorders and is home to one of the few ANMS-certified pediatric motility labs in the country performing esophageal, antroduodenal, colonic motility, and impedance studies. It is the only bowel management program in

North Texas for children with simple and complex anorectal malformations, the only multidisciplinary abdominal pain program and the only aerodigestive disorders management program in the area.

Hepatology & Liver Transplantation Program

Producing internationally recognized research and clinical studies in acute liver failure, viral hepatitis and chronic liver diseases, this is an internationally recognized active Pediatric Liver Transplantation program. The transplant program performs whole and split liver transplants using deceased or living donor livers to treat a range of liver diseases with outcomes that are above national averages.

Intestinal rehabilitation Program

Under the direction of Dr. Nandini Channabasappa, this is the only program of this type in the Southwest and is one of the largest in the country. It provides a comprehensive and integrated approach to nutritional support including parenteral and enteral feeding programs.

Southwestern Center for Pediatric Inflammatory Bowel Disease (IBD)

Directed by Dr. Ashish Patel, this Center provides specialized care for children with inflammatory bowel disease, conducts research into new treatments, genetics and epidemiology, and is a founding member of the now 80+ center international collaboration, the Improve Care Now network, establishing quality improvement indicators and benchmarks in order to rapidly advance patient care and optimize outcomes. The Center is one of the largest IBD centers in the nation caring for more than 400 children with Crohn's disease or ulcerative colitis and providing consultations to patients from throughout the U.S. and internationally.

Therapeutic Endoscopy Program

Directed by Dr. Brad Barth, the Therapeutic Endoscopy Program is one of the few programs in the United States performing specialized, cutting-edge endoscopic procedures, including endoscopic retrograde cholangiopanereatography (ERCP) in children of all ages and leads the nation in endoscopic innovation, research, and training. More than 3,000 endoscopic procedures performed per year, including specialized procedures such as ERCP and endoscopic ultrasound. The program, which houses a state-of-the-art training program with a simulation lab, has won the North American Society of Pediatric GI endoscopy prize three times.

Cystic Fibrosis Center

The childhood Cystic Fibrosis Center is co-directed by Drs. Meg Sathe from Pediatric Gastroenterology and Preeti Sharma from Pediatric Respiratory Medicine and provides a comprehensive team approach to this complex and chronic disease. The Center is actively involved in many national multicenter trials, including clinical trials of new and innovative treatments.

Eosinophilic Esophagitis and Esophageal Disorders Program

Co-directed by Drs. Edaire Cheng and Aakash Goyal, this program treats children with eosinophilic esophagitis in a multidisciplinary approach. It supports ongoing basic research into the basic mechanisms underlying disease pathogenesis.

Celiac Disease Program

Directed by Dr. Michele Alkalay and located at the Legacy campus in Plano, this is a multidisciplinary program involving intense nutritional and family support for children with celiac disease and gluten sensitivity.

Pancreatic Disorders Program

Co-directed by Drs. Brad Barth and David Troendle, this is a comprehensive program that brings the latest in minimally invasive surgical techniques to the treatment of children with disorders of the pancreas. Utilizing advanced therapeutic techniques improves recovery time and results in a smaller incision and less pain.

2015 Patient Statistics

Ambulatory visits		22,508
New outpatient	6,752	
Follow-up	15,756	
Procedures		3,000

Current Grant Support

Edaire Cheng

Grantor: National Institutes of Diabetes and Digestive and Kidney Diseases (K08)
Title of Project: The Role of Periostin and Th2 Cytokines in Eosinophilic Esophagitis Fibrogenesis
Role: Principal Investigator
Dates: 2013 – 2017

Grantor: American Gastroenterological Association (Research Scholar Award)
Title of Project: Eosinophilic Esophagitis Fibrogenesis
Role: Principal Investigator
Dates: 2013 – 2015

Andrew Feranchak

Grantor: NIH NIDDK 5 R01 DK078587-07
Title of Project: Mechanosensitive Signaling in Cholangiocyte Secretion
Role: Principal Investigator
Dates: 2013 –2015

Grantor: Children's Medical Center Research Foundation
Title of Project: Cholangiocyte Secretion and Bile Formation
Role: Principal Investigator
Dates: 2014 – 2015

Grantor: Cystic Fibrosis Foundation Pilot and Feasibility Award
Title of Project: Development and Characterization of a Polarized Cystic Fibrosis Bile Duct Epithelial Model
Role: Principal Investigator
Dates: 2011 – 2014

Grantor: NIH - K12 Child Health Research Career Development Award (CHRCDA)
Title: Antecedents and Sequela of Childhood Onset Diseases
Role: Mentor (PI: Perez-Fontan, J)
Dates: 2011 – 2016

Ashish Patel

Grantor: NIH 1U01DK095745-01
Title: PROTECT – Predicting Response to Standardized Pediatric Colitis Therapy
Role: Site Principal Investigator
Dates: 2012 – 2017

Grantor: CCFA
Title: Risk Stratification and Identification of Immunogenetic and Microbial Markers of Rapid Disease Progression in Children with Crohn's Disease
Role: Site Principal Investigator
Dates: 2013 – 2015

Grantor: NIH R01-DK087694-01A1
Title: Gene Discoveries in Subjects with Crohn's Disease of African Descent
Role: Site Principal Investigator
Dates: 2011 – 2016

Norberto Rodriguez-Baez

Grantor: NIH / University of Pittsburgh (Grant No. U01-DK072146)
Title: Pediatric Acute Liver Failure Study Group Registry and Biological Samples
Role: Co-Investigator
Dates: 2005 – 2015

Grantor: NIH / Johns Hopkins University (Grant No. U01-DK082872002)
Title: Hepatitis B Research Network – Effect of HBV DNA Methylation and the Mutant 1762T/1764A on Viral Load and HCC
Role: Co-Investigator
Dates: 2008 – 2020

Grantor: Gilead Sciences
Title: A Phase 2, Open-Label, Multicenter, Multi-cohort, Single-Arm Study to Investigate the Safety and Efficacy of Sofosbuvir + Ribavirin in Adolescents and Children with Genotype 2 or 3 Chronic HCV Infection
Role: Co-Investigator
Dates: 2014 - 2016

Grantor: Gilead Sciences
Title: A Phase 2, Open-Label, Multicenter, Multi-cohort Study to Investigate the Safety and Efficacy of Ledipasvir/Sofosbuvir Fixed Dose Combination in Adolescents and Children with Chronic HCV Infection
Role: Co-Investigator
Dates: 2014 - 2016

Charina Ramirez

Grantor: Children's Medical Center Research Foundation (CCRAC)
Title: Low Carbohydrate in Obese Children with Non-Alcoholic Fatty Liver Disease
Role: Principle Investigator
Dates: 2014 – 2016

Meghana Sathe

Grantor: Cystic Fibrosis Foundation
Title: SATHE14GE0 Developing Innovative Gastroenterology Specialty Training Program (DIGEST)
Role: Principle Investigator
Dates: 2014 – 2017

Grantor: Cystic Fibrosis Foundation
Title: SATHE14YO Therapeutic Drug Center
Role: Co-Principle Investigator
Dates: 2015 – 2015

Grantor: Cystic Fibrosis Foundation
Title: CC034-34 TX-34/34 Children's Medical
Role: Co-Principle Investigator
Dates: 2015 – 2016

Grantor: Cystic Fibrosis Foundation
Title: CC034-34 TX-34/34 Children's Medical
Role: Co-Principle Investigator
Dates: 2014 – 2015

Grantor: Cystic Fibrosis Foundation
Title: SATHE14QI0 One CF Center: Learning and Leadership Collaborative
Role: Principal Investigator
Dates: 2014 – 2015

Grantor: Abbott Laboratories and Janssen Research and Development LLC
Title: CFFC A Long-Term Prospective Observational Safety Study of the Incidence of and Risk Factors for Fibrosing Colonopathy in US Patients with Cystic Fibrosis Treated with Pancreatic Enzyme Replacement Therapy: A Harmonized Protocol across Sponsors
Role: Principle Investigator
Dates: 2012 – 2022

Grantor: Cystic Fibrosis Therapeutics Development Network and Scott Sagel, MD
Title: AQUADEKs2-IP-12 A Multi-Center, Randomized, Controlled, Double-Blind Study of the Effects of an Antioxidant-Enriched Multivitamin Supplement on Inflammation and Oxidative Stress in Cystic Fibrosis Patients
Role: Sub-Investigator
Dates: 2013 – 2016

Grantor: Vertex Pharmaceuticals Incorporated
Title: VX661-108 A Phase 3, Randomized, Double-Blind, Placebo-Controlled, Crossover Study to Evaluate the Efficacy and Safety of Ivacaftor and VX-661 in Combination With Ivacaftor in Subjects Aged 12 Years and Older With Cystic Fibrosis, Heterozygous for the F508del-CFTR Mutation, and a Second Allele with a CFTR Mutation Predicted to Have Residual Function
Role: Sub-Investigator
Dates: 2015 - 2017

Grantor: Parion Sciences
Title: A Randomized, Double-Blind, Placebo-Controlled, Parallel-Group Study to Evaluate the Safety and Efficacy of P-1037 Solution for Inhalation in Patients with Cystic Fibrosis

Role: Sub-Investigator
Dates: 2015 -2016

Grantor: Cystic Fibrosis Therapeutics Development and Steven Rowe, MD
Title: GOAL-OB-11 e2 A Randomized, Double-Blind, Placebo-Controlled, Parallel-Group Study to Evaluate the Safety and Efficacy of P-1037 Solution for Inhalation in Patients with Cystic Fibrosis
Role: Sub-Investigator
Dates: 2011 - 2016

David Troendle

Grantor: Children's Clinical Research Advisory Committee (CCRAC)
Title: Intravenous Ibuprofen for the Prevention of Post-ERCP Pancreatitis in Children and Adolescents, a Pilot Study
Role: Principal Investigator
Dates: 2014-2016

Peer-Reviewed Publications

1. Asanuma K, Huo X, Agoston A, Zhang X, Yu C, **Cheng E**, et al. In oesophageal squamous cells, nitric oxide causes S-nitrosylation of Akt and blocks SOX2 (sex determining region Y-box 2) expression. *Gut* 2015.

2. Heintz D, Megison S, Cope-Yokoyama S, **Goyal A**. Pancreatic head tumor in an infant with new-onset jaundice. *Journal of Pediatric Gastroenterology and Nutrition* 2015;60:e14-5.

3. Kovacic K, Sood MR, Mugie S, Di Lorenzo C, Nurko S, Heinz N, Ponnambalam A, Beesley C, **Sanghavi R**, Silverman AH. A multicenter study on childhood constipation and fecal incontinence: effects on quality of life. *The Journal of Pediatrics* 2015;166:1482-7 e1.

4. Li H, Koo Y, Mao X, **Sifuentes-Dominguez L**, et al. Endosomal sorting of Notch receptors through COMMD9-dependent pathways modulates Notch signaling. *The Journal of Cell Biology* 2015;211:605-17.

5. **Li Q**, Kresge C, Bugde A, Lamphere M, Park JY, **Feranchak AP**. Regulation of mechanosensitive biliary epithelial transport by the Epithelial Na Channel, ENaC. *Hepatology* 2015.

6. Phillips-Krawczak CA, Singla A, Starokadomskyy P, Deng Z, Osborne DG, Li H, Dick CJ, Gomez TS, Koenecke M, Zhang JS, Dai H, **Sifuentes-Dominguez LF**, et al. COMMD1 is linked to the WASH complex and regulates endosomal trafficking of the copper transporter ATP7A. *Molecular Biology of the Cell* 2015;26:91-103.

7. **Ramirez CM**, Lopez AM, Turley SD. Lysosomal acid lipase activity: A tool for the detection and management of fatty liver disease? *EBioMedicine* 2015;2:638-9.

8. Schwarz KB, Cloonan YK, Ling SC, Murray KF, **Rodriguez-Baez, N** et al. Children with chronic hepatitis B in the United States and Canada. *The Journal of Pediatrics* 2015.

9. Schwarzenberg SJ, Bellin M, Husain SZ, Ahuja M, **Barth B**, Davis H, Durie PR, Fishman DS, Freedman SD, Gariepy CE, Giefer MJ, Gonska T, Heyman MB, Himes R, Kumar S, Morinville VD, Lowe ME, Nuehring NE, Ooi CY, Pohl JF, **Troendle D**, et al. Pediatric chronic pancreatitis is associated with genetic risk factors and substantial disease burden. *The Journal of Pediatrics* 2015;166:890-6 e1.

10. Silverman AH, Berlin KS, Di Lorenzo C, Nurko S, Kamody RC, Ponnambalam A, Mugie S, Gorges C, **Sanghavi R**, Sood MR. Measuring health-related quality of life with the parental opinions of pediatric constipation questionnaire. *Journal of Pediatric Psychology* 2015;40:814-24.

11. **Troendle DM**, Abraham O, Huang R, Barth BA. Factors associated with post-ERCP pancreatitis and the effect of pancreatic duct stenting in a pediatric population. *Gastrointestinal Endoscopy* 2015;81:1408-16.

12. Varni JW, Bendo CB, Denham J, Shulman RJ, Self MM, Neigut DA, Nurko S, **Patel AS**, et al. PedsQL gastrointestinal symptoms scales and gastrointestinal worry scales in pediatric patients with functional and organic gastrointestinal diseases in comparison to healthy controls. *Quality of Life Research: An International Journal of Quality of Life Aspects of Treatment, Care and Rehabilitation* 2015;24:363-78.

13. Varni JW, Franciosi JP, Shulman RJ, Saeed S, Nurko S, Neigut DA, Bendo CB, **Patel AS**, et al. PedsQL gastrointestinal symptoms scales and gastrointestinal worry scales in pediatric patients with inflammatory bowel disease in comparison with healthy controls. *Inflammatory Bowel Diseases* 2015;21:1115-24.

14. Varni JW, Shulman RJ, Self MM, Nurko S, Saps M, Saeed SA, Bendo CB, **Patel AS**, et al. Symptom profiles in patients with irritable bowel syndrome or functional abdominal pain compared with healthy controls. *Journal of Pediatric Gastroenterology and Nutrition* 2015;61:323-9

15. Yu C, Huo X, Agoston AT, Zhang X, Theiss AL, **Cheng E**, et al. Mitochondrial STAT3 contributes to transformation of Barrett's epithelial cells that express oncogenic Ras in a p53-independent fashion. *American Journal of Physiology Gastrointestinal and Liver Physiology* 2015;309:G146-61.