In 2021 the Division of Pediatric Gastroenterology at UT Southwestern Medical Center, in partnership with the Children's Health System of Texas, continued to excel in its role as the leader in North Texas caring for children with gastrointestinal (GI), pancreatic, and liver disorders. The Division's ongoing mission is to promote health and a healthy society that enables achievement of every child's full potential. We fulfill this mission by providing the highest standard of care, advanced clinical programs, innovative training of future healthcare providers, and performing stateof-the-art clinical and translational research.

Under the leadership of Division Chief Bradley Barth, M.D., M.P.H., this nationally recognized division includes distinguished faculty who focus clinical and research efforts on diverse areas of pediatric digestive health. This growing and dynamic group is comprised of 19 faculty members offering inpatient, outpatient, and procedural services. In addition, the Division's physicians provide supervision to 15 Advance Practice Providers and specialty training to nine clinical and research fellows.



Bradley Barth, M.D., M.P.H. Division Chief

Gastroenterology at Children's Health again ranked number seven in the nation by US News and World Report in 2020 and currently provides clinical services and medical leadership at four practice sites:

- 1. Children's Medical Center Dallas
- 2. Children's Health[™] Specialty Center Plano
- 3. Texas Health Presbyterian Hospital
- 4. UT Southwestern/Texas Health Frisco

Clinical activities of the Division include a high volume, high acuity service, with more than 16,000 outpatient visits, 2,000 inpatient admissions and 3,000 procedures per year.

All of these functions are organized in a programmatic fashion into 20 distinct clinical programs:

- Aerodigestive Program
- Celiac Disease
- Childhood Obesity
- Chronic Abdominal Pain
- Clinical Nutrition
- Colorectal and Pelvic Surgery
- Cystic Fibrosis Center
- Eosinophilic/Allergic disorders
- Feeding Disorders
- General Gastroenterology
- Hepatology/Liver Transplant

- Inflammatory Bowel Disease
- Intestinal Immunology
- Intestinal Rehabilitation and Short Bowel Disease
- Neuro-Gastroenterology
- Non-alcoholic Fatty Liver Disease
- Pancreatic Disorders
- Polyposis
- Therapeutic Endoscopy/ Gastroenterology Laboratory

The mission of the Division of Pediatric Gastroenterology is to promote health and a healthy society that enables achievement of every child's full potential. Faculty strive to fulfill this mission by providing the highest standard of care, advanced clinical programs, innovative training of future healthcare providers, and performing state-of-the-art research.



Faculty

Currently the Division is comprised of 19 faculty members, with two new faculty members, Nonyelum Ebigbo and Claudia Phen, joining the Division in 2021.

Nonyelum E. Ebigbo, M.D.

Instructor



M.B.B.S. University of Nigeria College of Medicine 2004-2010

Postdoctoral Training

Resident Richmond University Medical Center, Staten Island NY 2015-2018 Fellowship UT Southwestern Medical Center, Dallas TX 2017-2020 Interests Gut Microbiome, Nutrition, Allergic gastrointestinal disorders

Claudia C. Phen, M.D.

Assistant Professor



B.A. University of Florida, Gainesville, FL 2011
M.D. University of Florida College of Medicine Gainesville, FL 2015
Postdoctoral Training Resident Johns Hopkins All Children's Hospital, St. Petersburg, FL 2015-2018
Fellowship UT Southwestern Medical Center, Dallas TX 2017-2020

Interests

Medical education, Liver disease, Polyposis Syndromes

Honors / Awards

Best Pediatric Specialists in Dallas, D Magazine

- Michele Alkalay
- Brad Barth
- Bhaskar Gurram
- Charina Ramirez
- Norberto Rodriguez-Baez

Texas Super Doctors, Texas Monthly Magazine

- Norberto Rodriguez-Baez
- Meghana Sathe

- Rinarani Sanghavi
- Meg Sathe
- Gaith Semrin
- David Troendle



Sarah Barlow

• Elected to the Executive Committee of the AAP Section on Obesity

Norberto Rodriguez-Baez

• Elected Secretary-Treasurer, North American Society for Pediatric Gastroenterology, Hepatology and Nutrition

Rina Sanghavi

• Appointed as Chair of the Professional Development Committee, North American Society for Pediatric Gastroenterology, Hepatology and Nutrition

Luis Sifuentes-Dominguez

• Received a 4-year, \$620,000, award from the NIDDK to study the role of SCGN (a SNARE component found in enteroendocrine cells in the gut) in intestinal immune homeostasis

David Troendle

• Appointed Associate Editor for the Journal of Pediatric Gastroenterology and Nutrition

Invited Lectures

Amal Aqul

• Pediatric Emergency Medicine Grand Rounds, (Virtual), January 2021 "Liver Transplant Emergencies"

Lauren Lazar

• Kenneth C. Haltalin Conference, Children's Medical Center, Dallas TX, October 2021 *"Abdominal Pain for the Primary Care Provider"*

Megha Mehta

- DFW Gut Club, Dallas TX, (Virtual), June 2021 Moderator: "Absorbing the latest in Exocrine Pancreatic Insufficiency"
- DFW Gut Club, Dallas TX, (Virtual), September 2021 Moderator: "The Role of nutritional therapy for patients with food allergy including eosinophilic esophagitis"
- PHM Faculty Development, UT Southwestern Medical Center Dallas, TX October 2021 "Pancreatitis management"

Isabel Rojas

• Joint Polyposis Special Interest Group-ESPGHAN meeting, (Virtual), June 2021 *"Outcomes after surgery in patients with Familial Adenomatous Polyposis Syndrome Chemoprevention in Polyposis"*



Rinarani Sanghavi

- Digestive Diseases Week, (Virtual), May, 2021 "Combating Gender Inequity: Implicit Bias and call for action"
- Haltalin Seminar, Children's Medical Center, Dallas TX, (Virtual), April, 2021 "Burning to Heal- Physician burnout in the US"
- Texas Society for Gastrointestinal Endoscopy (TSGE), (Virtual), March 2021 "Assessing Gender Equity at an Academic Medical Center"
- Pediatric Hematology Oncology Grand Rounds, (Virtual), June 2021 *"EQ and you Understanding and building your Emotional Intelligence"*

Meg Sathe

- Becky Donner & Associates Webinar, (Virtual), May 2021 "A Case-Based Exploration of Exocrine Pancreatic Insufficiency"
- Pediatrics Grand Rounds, UT Southwestern, (Virtual), January 2021 "GALAXY and Beyond:Developments in Gastrointestinal Research in Cystic Fibrosis"
- Pediatric Department Research Conference, UT Southwestern, (Virtual) March 2021 "Multicenter Study of Patient-Reported Gastrointestinal Symptoms in People with Cystic Fibrosis"

Conference Presentations

North American Society for Pediatric Gastroenterology, Hepatology and Nutrition Fellows Conference Virtual, December 2021

Barth B.

"How to Have and Love a Career in Pediatric GI"

Mehta M.

"Pancreas Poster Tour"

Other Conference Presentations

Aqual A.

The 2021 Virtual International Congress of International Liver Transplant Society (ILTS), May 2021 "Racial Difference and Navigation Toward the Top"

Norris N, Schlomer B, Gurram B.

2021 Crohn's & Colitis Congress, (Virtual) January 2021 Presentation: "Urinary bladder Necrosis- An Extra-Intestinal Manifestation of Inflammatory Bowel Disease in a Pediatric Patient."



Education and Training

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

Our three-year, ACGME-accredited fellowship program is directed by Dr. Norberto Rodriguez-Baez and Dr. Meghana Sathe. Dr. Charina Ramirez was named assistant program director in 2021. Our fellowship provides comprehensive training for nine gastroenterology fellows (three per year). In the first year of fellowship, emphasis is on acquiring knowledge and clinical skills in gastroenterology, hepatology, and nutrition. The second and third year of training focus on a basic science or clinical research project that meets the ACGME requirements for scholarly activity. Both areas emphasize acquiring skills in scientific presentation, writing abstracts and manuscripts, and grant development. The passing rate for initial certification in pediatric gastroenterology offered by the American Board of Pediatrics for our graduating fellows is 100%, with the majority of graduates currently practicing in academic institutions.



Pediatric Gastroenterology Fellows

Our training program is dynamic and innovative, offering individualized training tracks including, but not limited to, inflammatory bowel disease, neurogastroenterology & motility, advanced therapeutic endoscopy, study of the gut microbiome and cystic fibrosis (CF). The Cystic Fibrosis track is designed to provide an environment enriched in opportunities for fellows interested in performing research and enhancing their skills in the care of patients with CF. Drs. Nicholas Norris, David Willcutts, Joseph Woolley received the Cystic Fibrosis Foundation Clinical fellowship award given by the Cystic Fibrosis Foundation. Fellows electing to choose a basic science track focus on a specific area of basic research under the guidance of an established UTSW faculty researcher and may be funded by a T32 training grant during second and or third years of fellowship.

The primary scholarly projects of our current fellows in 2021 included:

· Improving Nutrition Assessment in Enterally-fed Pediatric Patients – Dr. Derek Ngai and Drs. Sarah Barlow and Meghana Sathe (mentors)

· Role of Colonic Enteroendocrine Cells in Weight Alterations and Glycemic Control – Dr. Jacobo Santolaya and Drs. Ezra Burstein and Luis Sifuentes (mentors)

• Patient Attitudes Regarding Medical Provider Communication in Adolescents with Cystic Fibrosis – Dr. Joseph Woolley and Dr. Jenny Rodriguez Francis (mentor)

· Standardized Coaching Language to Improve Endoscopy Training Quality – Dr. Aayush Gabrani and Drs. Roopa Vemulapalli and Catharine M. Walsh (mentors)

· Modulating Host Immunity with Helminth-derived Products- Dr. Phinga Do and Dr. Andrew Koh (mentor)

• Targeted Therapy for Cystic Fibrosis Transmembrane Receptor-Mediated Congenital Diarrhea – Dr. David Willcutts and Drs. Ezra Burstein and Luis Sifuentes (mentors)

In June of 2021, Drs. Nonyelum Ebigbo, Annette Medina, and Claudia Phen successfully completed their training in our program. Drs. Ebigbo and Dr. Phen joined the faculty at UT Southwestern and Dr. Medina is practicing at the Nicklaus Children's Hospital in Miami.

Locally, our fellows participate in important hospital initiatives including the Children's Physician Advisory committee and committees charged with improving the use of our electronic health record. On a national level, fellows are actively



Page | 5

involved in committees at NASPGHAN and the American Academy of Pediatrics. Our fellows presented at several national conferences including the NASPGHAN annual meeting and the North American Cystic Fibrosis Conference. Fellows also published in several medical journals in 2021.

As a program, we continue our commitment and support to NASPGHAN and its educational activities including the Fellows Conferences. We are proud that many of our faculty members have participated, organized, and lead these national conferences for NASPGHAN. In 2020, Dr. Norberto Rodríguez-Báez participated as faculty in the three Fellows Conferences. Dr. Rinarani Sanghavi served as faculty in the second year Fellows Conference.

In addition, on a national level, Dr. David Troendle continues to co-direct a group of therapeutic endoscopists that has created a virtual, web-based lecture series to discuss difficult cases and challenging issues facing pediatric gastroenterologists with a career focus on therapeutic endoscopy

Research Activities

Research activities cover a wide range of important GI disorders in basic, translational and clinical programs. The Division has many active ongoing research studies including several National Institutes of Health (NIH)-sponsored projects to understand the origins of childhood gastrointestinal diseases. The Division is participating in more than 40 ongoing IRB-approved clinical trials, including several national, multicenter studies evaluating treatments for pancreatic disease, Cystic Fibrosis, chronic constipation, inflammatory bowel disease, hepatitis, and liver failure.

Liver Research

- Dr. Norberto Rodríguez-Báez is the principal site investigator for a national, multicenter, NIH-supported study examining the safety and efficacy of treatments for acute liver failure in children. He also participates in clinical studies for children with hepatitis B and C. Dr. Rodriguez-Baez has co-authored articles presenting the results of the studies. He has also presented at national conferences.
- Dr. Charina Ramirez's research focuses on 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. She also participates in research involving Niemann-Pick type C disease and lysosomal acid lipase deficiency. Moreover, she is collaborating with Dr. Meghana Sathe to explore contributing factors to the progression of cystic fibrosis associated liver disease.
- Dr. Sarah Barlow is site investigator for an industry-sponsored observational study of children with NAFLD.
- Dr. Lauren Lazar is completing work on a five year review of biochemical markers and ultrasound findings in Dallas pediatric cystic fibrosis (CF) patients, working to establish a new diagnostic algorithm for CF liver disease.

Gastroenterology Research

• Dr. Luis Sifuentes is studying basic mechanisms of intestinal inflammation. He is supported by a departmental, NIHsponsored, Child Health Research Career Development Award and is working closely with Dr. Ezra Burstein in the Department of Internal Medicine's Division of Gastroenterology at UT Southwestern to understand the molecular basis of early-onset IBD. Using cutting edge genomic and proteomic approaches, they have identified novel genes that play a role in early-onset IBD.



- Dr. Rina Sanghavi focuses on research related to diversity and equity in pediatric GI on a national scale. She also works with the neonatology group to assess for GI tract motility maturation in newborns in basic and translational research as well as microbiome research.
- Dr. Bhaskar Gurram has assumed the role of site leader for the multicenter IBD collaborative Improve Care Now. His clinical and research interests include inflammatory bowel diseases, immune deficiency states manifesting with gastrointestinal symptoms and Clostridiodes difficile infection. He is the site principal investigator for several multicenter clinical trials looking at therapeutics for management of inflammatory bowel



Drs. Rinarani Sanghavi and Ricardo Medina-Centeno

diseases. He also is co-investigator for the multicenter growth study in pediatric Crohn's disease patients. Our center also participates in several multicenter registry studies that look at the post marketing data on existing biologic studies.

- Dr. Brad Barth studies therapeutic interventions for complex childhood hepatobiliary and pancreatic disorders. His clinical and research interests include therapeutic endoscopy, ERCP, endoscopic treatment of gastrointestinal bleeding, and pancreatic disease in children.
- Dr. David Troendle's research focuses on interventional endoscopic approaches for the treatment of GI bleeding and pancreatic disease, as well as the prevention of post-ERCP pancreatitis. He is also investigating the epidemiology and severity of acute, recurrent, and chronic pancreatitis in children.
- Dr. Sarah Barlow is actively involved in the study childhood obesity and nonalcoholic fatty liver disease, working toward effective interventions. Projects include: 1) evaluating telehealth in multidisciplinary weight management program, 2) development and implementation of a web-based program in English and Spanish for primary care providers to offer to parents; the website provides practical guidance on healthy lifestyle, 3) validation of a questionnaire to assess knowledge of MyPlate healthy eating concepts, and 4) implementation of a community-based healthy weight program.
- Dr. Meghana Sathe is involved in multiple projects studying care of children with Cystic Fibrosis, including a multicenter study for which she was a co-PI, evaluating the landscape of GI symptomatology in persons with CF (GALAXY Study). She has also focused on infant nutrition in CF and participates as a site investigator for GI and nutrition studies in persons with CF through the Therapeutic Drug Network, qualitative research through the Strategies in Therapeutics, and quality improvement through the CF Learning Network.
- Dr. Aakash Goyal is the primary investigator on a study to evaluate the pharmacokinetics of IV proton pump inhibitors in children. He is also a co-investigator on projects working to establish a biorepository for samples of patients with suspected EoE, and to evaluate esophageal biopsy techniques in children. Additionally, he is coinvestigator for a phase 3 study to investigate efficacy and safety of Dupilumab in adult and adolescent patients with EoE. He will be a coinvestigator for an upcoming phase 3, multicenter, multinational study to evaluate efficacy and safety of CC-93538 in adult and adolescent subjects with EoE. Lastly, Dr. Goyal is involved in a project evaluating efficacy and safety of dose escalation in children with IBD on infliximab.
- Dr. Megha Mehta has clinical and research interests in pediatric pancreatic disorders. She participates in international multicenter research on the evaluation and outcomes of pediatric recurrent and chronic pancreatitis.
- Dr. Michele Alkalay focuses on the quality of life in children with celiac disease and collaborates on research examining the microbiome in various celiac populations. She is currently examining ethnic differences in the clinical presentation of celiac disease in a pediatric population.



- Dr. Isabel Rojas has initiated a multicenter, international project studying gastrointestinal polyposis in children, and the effects of treatment using sirolimus in this population.
- Dr. Claudia Phen has clinical and research interests in pediatric polyposis and hereditary GI cancer syndromes. She is an active member of NASPGHAN's polyposis interest group and is working to improve education and resources for patients, families, and other providers on primary polyposis syndromes. She also collaborates and participates in international, multicenter polyposis research to optimize evaluation, management, and surveillance of children and adolescents with polyposis syndromes.
- Dr. Aqul's research focuses on cholestatic liver disease and quality improvement projects for liver transplant. She is the site primary investigator on multi-center clinical trials evaluating the effect of ileal bile acid transporter inhibition on pruritus and serum bile acids in patients with progressive familial intrahepatic cholestasis and progression of liver disease in patients with biliary atresia. She has collaborated with other centers on studying cerebral vascular anomalies in patients with Alagille's syndrome. Additionally, she is collaborating with UTSW genetics to identify novel gene mutations that have been associated with pediatric cholestatic liver disease. Dr. Aqul continues to participate in research involving lysosomal acid lipase deficiency.

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 Plano and Texas Health Resources Dallas and Frisco. In the patient-centered environment, physicians are joined by nurse practitioners, physician assistants, child psychologists, dieticians, speech therapists, child life specialists, social workers, an enterostomal therapist/educator, and a care coordinator to provide multidisciplinary, comprehensive, state-of-the-art care for children with virtually any gastrointestinal, pancreatic or liver problem.

Gastroenterology Endoscopy Lab

The gastroenterology lab staff of specially trained endoscopy nurses and technicians supports not only routine endoscopic procedures, but also advanced and therapeutic endoscopy, including ERCP, cholangioscopy, EUS, balloon enteroscopy and capsule endoscopy. We also perform a full array of motility procedures, including anorectal, esophageal, antroduodenal, small bowel, and colonic manometry, as well as EndoFlip. The unit performed approximately 75 pediatric ERCPs and 30 pediatric EUS cases in 2021. We were also one of the first Pediatric centers in the world to successfully pilot the use of a new disposable duodenoscope in Pediatric patients designed to decrease the risk of procedurally acquired infections.

Specialized Programs

The Division supports multiple specialized clinical programs. Faculty accept referrals for all of the following programs and a Gastroenterology physician is on call daily to consult with referring physicians.

Neurogastroenterology Program

Under the direction of Dr. Rina Sanghavi, this program provides comprehensive care for children with complex GI dysmotility, including intestinal pseudo-obstruction, dysmotility following infection or surgery, and neuromyopathies. It is home to one of the few ANMS-certified pediatric motility labs in the country performing esophageal manometry, antroduodenal and colonic motility, and esophageal 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. In 2017, the Biofeedback program directed by was introduced, providing life changing treatment to children with disordered defecation.



Aerodigestive Program

Directed by Dr. Rina Sanghavi, Dr. Romaine Johnson (ENT), and Dr. Yadira Rivera-Sanchez (Pulmonology), the multidisciplinary aerodigestive program combines the services of gastroenterology, pulmonology, and ear, nose and throat (ENT) specialists. Pediatric patients are referred from all over the nation for comprehensive evaluation of swallowing, breathing, and feeding disorders. This specialized program includes procedural services such as esophageal impedance, BRAVO pH monitoring, endoscopy, bronchoscopy and laryngoscopy.

Chronic Abdominal Pain Program

Directed by Dr. Rinarani Sanghavi and Dr. Thomas Spain (Pain Specialist), the chronic abdominal pain program (CAPP) provides comprehensive evaluation and treatment to children with chronic abdominal pain. This multidisciplinary program includes a skilled team consisting of gastroenterologists, pain management specialists, psychologists, and nurses. It is the only comprehensive pain management program in North Texas for children with abdominal pain.

Hepatology & Liver Transplantation Program

This program is an internationally recognized active Pediatric Liver Transplantation program with some of the best outcomes in the nation. Led by Dr. Amal Aqul (Transplant Hepatology) and Dr. Dev Desai (Transplant Surgery), the liver transplant program performs whole and split liver transplants in a multidisciplinary setting. Living-related donor liver transplantation is available, as well, in appropriate cases.

Pediatric Liver Care

Offers comprehensive and multidisciplinary care for patients with various pediatric liver disease including autoimmune liver disease, Fontan associated liver disease and vascular liver disorders

Intestinal Rehabilitation Program

Under the direction of Dr. Nandini Channabasappa, this is the only program of its type in North Texas and the surrounding states and is one of the largest in the country. Located in a geographic region with a rapidly growing pediatric population, and serving as a referral center for multiple NICUs, the program provides a much-needed comprehensive approach to nutritional support, including parenteral and enteral feeding programs for children with short bowel syndrome, intestinal pseudo-obstruction and other disorders resulting in intestinal failure, as well as for those who have undergone intestinal transplantation.

Pediatric Inflammatory Bowel Disease (IBD) Program

Directed by Dr. Bhaskar Gurram, this program provides specialized care for children with inflammatory bowel disease, conducts research into new treatments, genetics, and epidemiology, and is a founding member of the extremely successful international collaboration, the Improve Care Now network, establishing quality improvement indicators and benchmarks to rapidly advance patient care and optimize outcomes. The Center is one of the largest IBD centers in the nation caring for more than 500 children with Crohn's disease or ulcerative colitis and providing consultations to patients from throughout the U.S. and internationally.

Pediatric Intestinal Immunology Clinic (PIIC)

Also directed by Dr. Gurram, the Pediatric Intestinal Immunology Clinic provides comprehensive evaluation and care to children with immunodeficiency and/or immune dysregulation with corresponding intestinal inflammation. It combines the skills of gastroenterologists, immunologists, geneticists and pathologists, and it is the only one of its kind in North Texas. We also provide multidisciplinary care for patients with Very Early Onset Inflammatory Bowel Disease (VEOIBD) in this clinic. We receive referrals and second opinions regionally as well as nationally for this complicated group of patients. In this clinic we follow over 100 patients with Immune deficiency/dysregulation states/VEOIBD. We are in the process of creating a VEOIBD Center of Excellence (VICE)



Page | 9

Childhood Obesity Program

Directed by Dr. Sarah Barlow, the Childhood Obesity program uses a cross-disciplinary, cross-site approach to care for children. The program provides resources for primary care providers, including electronic health record clinical decision support, connections to community-based weight management programs, and nutritional education.

Non-Alcoholic Fatty Liver Disease Program

This growing program is directed by Dr. Charina Ramirez. Focus is placed on personalized treatment plans developed based on the readiness level of the patient to make lifestyle and dietary modifications. A comprehensive evaluation for co-existing liver conditions as well as co-morbidities associated with NAFLD is provided. Progression of liver disease is monitored using different imaging modalities, when indicated (such as MRI Liver with Elastography, US with elastography, and/or Fibroscan). Clinical resources such as Nutrition Clinic and GI Psychology, as well as referrals to the Bariatric Program and community based Get Up and Go Program are available.

Therapeutic Endoscopy Program

Directed by Dr. David Troendle, the Therapeutic Endoscopy Program is one of the few programs in the United States performing specialized, cutting-edge endoscopic procedures, including endoscopic retrograde cholangiopancreatography (ERCP) in children of all ages, and leads the nation in endoscopic innovation, research, and training. More than 3,000 endoscopic procedures are 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 multiple times, and is the founding site for the Pediatric ERCP Database Initiative. This project, started by Dr. Troendle, collects data from national and international centers related to ERCP indications, complications and outcomes.

Cystic Fibrosis Program

The childhood Cystic Fibrosis program, co-directed by Drs. Meg Sathe from Pediatric Gastroenterology and Preeti Sharma from Pediatric Respiratory Medicine, provides a comprehensive team approach to this complex and chronic disease. It is actively involved in many national multicenter trials, including clinical trials of new and innovative treatments. It also focuses on qualitive improvement, a mainstay in the improvement of the lives of persons with CF.

Eosinophilic Esophagitis and Esophageal Disorders Program

Directed on the GI side by Dr. Aakash Goyal, this program, known as the Dallas Eosinophilic Esophagitis Program (DEEP), treats children with eosinophilic esophagitis using a multidisciplinary clinical approach with involvement of an allergist, dietitian, psychologist, and pathologist on the team. Children's Health gastroenterologists (GI) and community GI have recognized DEEP as center of excellence for treatment of eosinophilic diseases in children, and we have been getting referrals in increasing numbers. In addition to clinical work, the program supports ongoing basic research into the mechanisms underlying disease pathogenesis.

Celiac Disease Program

Directed by Dr. Michele Alkalay and located at the satellite campus in Plano, this is a multidisciplinary program involving intense nutritional and family support for children with celiac disease and gluten sensitivity. It is the only program of its kind in the DFW area.

Pancreatic Disorders Program

Drs. David Troendle and Megha Mehta lead a comprehensive program spanning inpatient, outpatient, and procedural care that brings the latest in minimally invasive endoscopic techniques to the treatment of children with disorders of the



Page | 10

pancreas. The program has a strong foundation in robust international collaborative research and is a designated National Pancreas Foundation Center of Excellence. Patients are referred from all over the nation for evaluation and for advanced therapeutic techniques offered at few other Pediatric centers in the United States.

Feeding Disorders Program

Directed by Dr. Gaith Semrin, the Feeding Disorders program at Children's Health consists of a multidisciplinary team dedicated to the care of patients with disorders of oral feeding. The mission of the program is to formulate individual therapy, foster feeding independence, and improve the quality of life for patients with feeding problems.

Fecal Microbial Transplant Program

In 2018, Dr. Bhaskar Gurram and Dr. Paul Sue co-founded this program, which is the first of its kind in North Texas, aimed at treating children with recurrent or refractory <u>C difficile</u> infection.

Patient Statistics

Gastroenterology Patient Visits by Type per Location by Year.

Dallas		2017	2018	2019	2020	2021
	Ambulatory Visits	14,861	15,110	15,437	12,649	17,696
	New	4,16	L 4,077	4,322	3,285	4,645
	Follow-up	10,70	11,033	11,115	9,364	13,051

Plano		2	017	2018	2019	2020	2021
	Ambulatory Visits	6,8	344	6,652	6,387	3,584	2,861
	New		2,190	1,980	2,172	1,179	1,321
	Follow-up		4,654	4,672	4,216	2,405	1,540

THD		2017	2018	2019	2020	2021
	Ambulatory Visits	717	711	779	439	689
	New	272	264	358	174	241
	Follow-up	445	447	421	265	448

Totals		2017	2018	2019	2020	2021
	Ambulatory Visits	22,422	22,473	22,603	16,672	21,246
	New	6,623	6,321	6,852	4,638	6,207
	Follow-up	15,799	16,152	15,751	12,034	15,039
	Procedures	3,304	3,663	3,589	2,513	2876



Current Grant Support

Sarah Barlow

Grantor: NICHD Title of Project: Partnering Lifestyle Intervention with Bariatric Surgery to Maximize Health Outcomes in Adolescents Role: Co-Investigator Dates: 2022 – 2023

Norberto Rodriguez-Baez

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 – 2022

Grantor: NIH-NATIONAL INSTITUTE OF DDK DISEASES/ LURIE CHILDREN'S HOSPITAL OF CHICAGO Title: Pediatric Acute Liver Failure Immune Response Network: TReatment for ImmUne Mediated PathopHysiology (PALF IRN: TRIUMPH) Role: Principal Investigator Dates: 2021 – 2022

Meghana Sathe

Grantor: Cystic Fibrosis Foundation Title: STRC Role: Co-Principal Investigator Dates: 2018-2022

Grantor: Cystic Fibrosis Foundation Title: WILLCU20B0 1st and 2nd Year Fellowship Grant Role: Sponsor Dates: 2020-2022

Grantor: Cystic Fibrosis Foundation Title: CNCF3 – Pilot Learning Network Role: Co-Principal Investigator Dates: 2016-2021

Grantor: Cystic Fibrosis Foundation Title: CC034-34 TX-34/34 Children's Medical Role: Co-Principal Investigator Dates: 2013-2022

Grantor: Cystic Fibrosis Foundation Title: First Year CFF Clinical Fellowship - NORRIS21B0 Role: Co-Principal Investigator Dates: 2021-2022

Grantor: Cystic Fibrosis Therapeutics Title: SATHE14YO Therapeutic Drug Center Role: Co-Principal Investigator Dates: 2015-2021



Grantor: Cystic Fibrosis Therapeutics Title: Statistical Support for UT Southwestern CF Program Projects Role: Co-Principal Investigator Dates: 2021-2022

Luis Sifuentes-Dominguez

Grantor: NIH-National Institute Of DDK Diseases Title of Project: Role of SCGN in intestinal immune homeostasis Role: Principal Investigator Dates: 2021-2025

David Troendle

Grantor: NIH-NIDDK U01 DK108328-02S1 Title: Consortium for the Study of Chronic Pancreatitis, Diabetes and Pancreatic Cancer: Coordinating and Data Management Center (CSCPDPC-CDMC) Role: Principal Investigator Dates: 2015-2022

Grantor: NIH-National Institute of DDK Diseases Title: A Randomized Trial of a Web-based Non-Pharmacological Pain Intervention for Pediatric Chronic Pancreatitis Role: Principal Investigator Dates: 2015-2022

Peer-Reviewed Publications

- Barlow SE, Lorenzi A, Reid A, Huang R, Yudkin JS, Messiah SE. <u>The Implementation and Five-Year Evolution of</u> <u>a Childhood Healthy Weight Program: Making a Health Care-Community Partnership Work.</u> *Child Obes.* 2021 Oct;17(7):432-441. PMID:33945306
- Bove KE, Bernieh A, Picarsic J, Cox JP, Yang E, Mantor PC, Thaker A, Lazar L, Sathe M, Megison S. <u>Hypoplasia of Extrahepatic Biliary Tree and Intrahepatic Cholangiolopathy in Cystic Fibrosis Imperfectly Mimic Biliary Atresia in 4 Infants With Cystic Fibrosis and Kasai Portoenterostomy.</u> *Am J Surg Pathol.* 2021 Nov 1;45(11):1499-1508. PMID:34510112
- Chan KL, Varughese N, Jones PM, Zwick DL, Rajaram V, Lee M, Ramirez CM. <u>A Case of Dubin-Johnson Syndrome</u> <u>Presenting as Neonatal Cholestasis With Paucity of Interlobular Bile Ducts</u>. *Pediatr Dev Pathol*. 2021 Mar-Apr;24(2):154-158. PMID:33470920
- Chen Q, Suzuki K, Sifuentes-Dominguez L, Miyata N, Song J, Lopez A, Starokadomskyy P, Gopal P, Dozmorov I, Tan S, Ge B, Burstein E. <u>Paneth cell-derived growth factors support tumorigenesis in the small intestine</u>. *Life Sci Alliance*. 2021 Mar;4(3):. PMID:33372038
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