

# CF-AIR & CF@LANTA NEWSLETTER

Cystic Fibrosis Center of Excellence

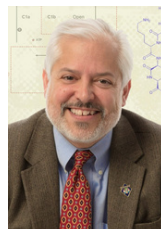
Emory University - Children's Healthcare of Atlanta -  
Georgia Tech - Augusta Univ. - Georgia State - UGA



SEPTEMBER 2025



## Director's Update Dr. Nael McCarty



Dear Friends, Patients, and Families,

We hope this e-Newsletter finds you well. As always, we have a lot to report! In the first few pages, you'll see a description of the CF-AIR/CF@LANTA Research Retreat that was held on September 19. We have not held a retreat in several years, first being interrupted by COVID-19, but we made up for that with a wonderful six-hour event this year. The goal was to pull together Center Members at all stages, from each of our five local institutions (excluding Augusta University, 135 miles away), to share research, network, and have fun. We had a total of 93 people show up through the day. Photos of these shiny, happy people are shown below and on the following pages.

Aren't we ALL tired of the lack of community that stems from having meetings remotely? It's so hard to form human connections and new collaborations that way. I am grateful for the faculty, staff, and trainees that planned and executed this great event; special thanks to Mrs. Megan Stewart, the Program and Research Manager for CF-AIR, who led the charge. We look forward to the next Retreat, likely in two years since the CF conference next year is in Atlanta!

Best wishes,

Nael

### In This Issue

2-3 CF-AIR Research Retreat

4 Caplan Evening & NACFC

5 Research Highlight

6-7 Recent News

8-9 Publications

10 Seminar Schedule

11 Connect with Us



2025 CF-AIR Research Retreat



# CF-AIR Research Retreat

CF-AIR and CF@LANTA faculty, post docs, fellows, students and staff gathered for a day of research-sharing and community-building at the Children's Healthcare of Atlanta Support building on September 19<sup>th</sup> for a Research Retreat. With over 90 attendees and participants from Emory, Children's Healthcare of Atlanta, Georgia Tech, and Georgia State, the day provided opportunities for networking, sharing science, and fun amongst our group. In his opening remarks, Center Director Dr. Nael McCarty shared the goals for the retreat and recognized the hard work of the planning committee in creating an agenda to meet these goals, which included rapid-fire presentations, a keynote speaker, networking, and team-building activities. Planning committee members included Mila Aldeco, Dr. Joshua Chandler, Genoah Collins, Collin Leese-Thompson, Dr. Irina Miralda Molina, Dr. Kathryn Oliver, Dr. Hazel Ozuna, Dr. Susan Stephenson, and Megan Stewart.



PhD students presented at our first session of rapid-fire presentations (pictured below, top right), with three minutes each to present, followed by a fifteen-minute panel-style question & answer period. Presenters included Ewurama Aning (Georgia State), Jonica Brown (Emory), Erica Browne (Emory), Badiallo Diani (Georgia Tech and Emory), and Joseph Shapiro (Emory). The session was moderated by Dr. Kathryn Oliver.

Keynote speaker Dr. Eric Sorscher (pictured above) presented his talk, "Cystic Fibrosis: Embracing risk and inspiration." He discussed precision cystic fibrosis medicine and CFTR modulators, as well as improving access to small molecule therapies. Dr. Sorscher recognized the transformative treatments for patients with CF, while addressing ongoing challenges and barriers as well as opportunities to meet and surmount these challenges.





# CF-AIR Research Retreat



Retreat participants were then (randomly, by nametag color) placed into groups for our team-building exercise, which was a trivia game developed and MC'ed by our own Dr. Irina Miralda Molina, with scorekeeping by Dr. Clovis Sarmiento (pictured above, right). This session included a lot of laughs and a number of participants questioning their knowledge of pop culture. The winning team, “GangGreen,” consisted of Dr. Jessica Alvarez, Athena Chien, Genoah Collins, Dr. Nael McCarty, Su Yeon Oh, Dr. Bethan Roberts and Janiyah White (pictured above, left). A very big thank you to Irina for her hard work in making this such fun for the entire group! In addition, throughout the day, participants enjoyed learning more about each other through a Bingo game.



After lunch, our second group of rapid-fire presenters consisted of post-doctoral fellows Ashley Alexander, PhD (Georgia State), Kathryn Crotty, PhD (Emory), Sam Durfey, PhD (Emory), Morgana Letizia, PhD (Georgia Tech), and Irina Miralda Molina, PhD (Emory), moderated by Dr. Joshua Chandler (above, left). The third group of rapid-fire presenters were Kristen Facey Holligan, BSc, MBBS (Emory/Children's Healthcare of Atlanta), Prashant Kumar, PhD (Emory), James Lyles, PhD (Emory), Diego Moncada Giraldo, PhD (Emory), and Ashlyn Winters (Emory), moderated by Dr. Ben Kopp (above, right). Attendees then broke into table topics for networking, with a special thank you to Drs. Joshua Chandler, Anne Fitzpatrick, Ben Kopp, Kathryn Oliver, Nael McCarty, Arlene Stecenko, and Rabin Tirouvanziam for providing their insights on a variety of topics during the networking session.

At the conclusion of our day, top awards for each of our rapid-fire sessions were presented to Jonica Brown, Dr. Irina Miralda Molina, and Dr. Diego Moncada Giraldo. We would like to thank our judges panel, Drs. Ben Kopp, Joshua Chandler, Joanna Goldberg, Nael McCarty, Kathryn Oliver, Arlene Stecenko, and Rabin Tirouvanziam and congratulate all of our rapid-fire presenters for their fantastic work in sharing their research. Thank you to all of our retreat attendees for your participation and enthusiasm, making it a truly successful day for our Center!

# Events & Updates

## Dr. Daniel B. Caplan CF Family Science Evening

Held on the September 10, 2025, in memory of Dr. Daniel B. Caplan, this virtual event included talks by Emory + Children's researchers presenting the exciting and cutting-edge CF research happening at Emory + Children's in a format appropriate for our patients and families.

Opening remarks were given by Dr. Rachel Linnemann and Dr. Ben Kopp. Dr. Linnemann presented on the newborn screening and health equity initiatives, followed by Dr. Tanicia Daley's talk on nutrition and diabetes. Dr. Joshua Chandler addressed the group with a discussion on monitoring CF through metabolites. Dr. Eric Sorscher presented on new therapeutics. With over forty people in attendance, this event provided an opportunity for our researchers to share their current projects, and for the community to ask questions and gather more information about the work at Emory + Children's.



*Dr. Daniel B. Caplan*

## North American Cystic Fibrosis Conference October 22 - 25, 2025 | Seattle, Washington

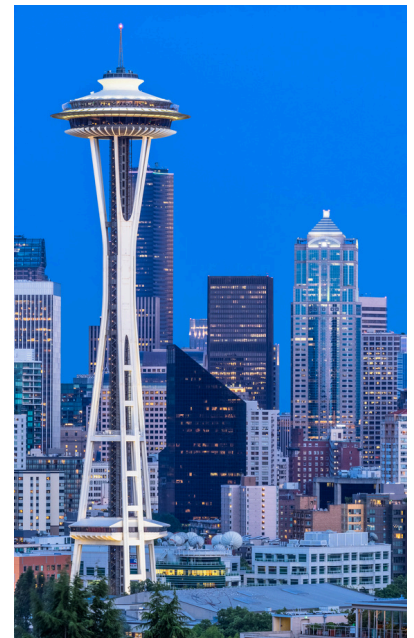
We're looking forward to this year's North American Cystic Fibrosis Conference (NACFC) in Seattle. More than 40 Emory University and Children's Healthcare of Atlanta faculty, trainees, staff, and students will be taking part as speakers, chairs, and panelists throughout the meeting.

A detailed schedule highlighting our participation will be shared as the conference gets closer.

For those attending, please join us at the **CF@LANTA Reception**:

- 📍 Flatstick Pub – South Lake Union (609 Westlake Ave N, Seattle, WA 98109)
- 📅 Thursday, October 23 | 7–9 PM
- 🍴 Food will be provided

We're excited to connect with colleagues, celebrate our community's work, and enjoy some time together in Seattle.



# Research Highlight

## Recent publication outlines quality improvement methods to improve modulator management and side effect screening at CF centers nationally

CF-AIR and CF@LANTA primary investigator Rachel Linnemann, MD recently published an impactful journal article which outlines the application of quality improvement methods to improve modulator management and side effect screening at multiple cystic fibrosis (CF) centers across the country.

Senior author Dr. Linnemann published study results on July 22, 2025, in *Pediatric Pulmonology*. The article is titled “Improving Modulator Management and Side Effect Screening: A CF Learning Network Innovation Lab.” The study, funded by the Cystic Fibrosis Foundation and co-led by Dr. Linnemann, collected data from nearly 8000 patient visits occurring at 31 CF centers that participate in the CF Learning Network – a national quality improvement network. Participating sites included the Children’s Healthcare of Atlanta Pediatric CF Program and the Emory Adult CF Program.

Despite the eligibility of over 90% of people with cystic fibrosis (PwCF) for CFTR modulators, 12% of eligible PwCF are not prescribed these therapies. Through a quality improvement (QI) innovation lab (iLab), the authors investigated gaps in modulator use and identified best practices for modulator initiation, management, and side effect screening. Across 4649 visits evaluated in Phase 1 of the study, the majority of eligible PwCF not taking modulators had a co-produced reason for deferral, most commonly previous side effects. Across 3236 visits examined in Phase 2 of the study, side effect screening rates improved, with the centerline shifting from 67.1% to 80.8%. Potential side effects were identified in 24.5% of screenings.

“



***“Side effects have emerged as a topic of critical importance to people with CF and their caregivers. Our results highlight the importance of side effect screening so that these can be identified and addressed, in some cases preventing discontinuation of effective therapies,” said Dr. Linnemann. “The best practices we identified can also be applied as Alyftrek (vanzacaftor-tezacaftor-deutivacafor) and other novel CF therapies are introduced in the clinics.” -Dr. Rachel Linnemann***

”

*Pediatric Pulmonology* is the leading global journal for respiratory system health and disease from fetal life through adolescence and adulthood, as well as a principle source for pediatricians in practice and in training, and for pediatric pulmonologists.

Dr. Linnemann serves as the Director of the Cystic Fibrosis Care Center and Co-Director of the Pediatric Cystic Fibrosis Program at Children’s and Emory, and she is also Associate Professor, Department of Pediatrics at the Emory University School of Medicine.

The abstract of the article can be found online [here](#).



# Recent News

## Announcing the 2025-2027 CF Scholars

The goal of the CF Scholars Program is to recruit, educate, and mentor pre-doctoral and post-doctoral researchers and clinicians to become the next generation of academicians in cystic fibrosis research. Participants gain an increased understanding of CF and how to perform team science, enhance their communication skills, and become patient and scientific advocates. The program includes in-depth and frequent interactions between CF clinicians and CF scientists to educate trainees on the important role each plays in the lives of the CF patient and their family. We are excited to announce our 2025-2027 CF Scholars:

- Kathryn Crotty, PhD
- Sam Durfey, PhD
- Kristen Facey, MD
- Sujay Greenlund
- JaNise Jackson, PhD
- Irina Miralda Molina, PhD
- Su Yeon Oh
- Samhita Padmanabhan
- Laura Rotolo, PhD
- Shannon Williams, DO
- Ashlyn Winters
- Kevin Zhu



### **Congratulations to Dr. Ben Kopp on his recent National Heart, Lung, and Blood Institute (NHLBI) grant for the SMILE (Sickle Cell Disease Microbiologic and Immunologic Links to Health) project.**

This research will help understand how variations in environmental exposures and immune/microbiologic responses predispose children with sickle cell disease to poor clinical outcomes. The findings will help improve the prediction, prevention, and treatment of acute complications in children with SCD with strategies that move beyond the current paradigm of supportive and/or reactive care.

## Introducing Jenipher Ober-Oluoch, Clinical Research Coordinator



*Jenipher Ober-Oluoch*  
Clinical Research Coordinator

We are very pleased to introduce Jenipher Ober-Oluoch, who joins us as a Clinical Research Coordinator. She is an Epidemiologist with a background in pediatric dentistry. She holds a Master of Dental Surgery in Paediatric Dentistry from the University of Nairobi, Kenya, as well as a Master of Public Health - Epidemiology Concentration from the Georgia State University in Atlanta, Georgia.

Jenipher is joining us from the Behavioral Genetics of Addiction (BGA) Laboratory housed in the Psychology Department at Emory University, where she was a Research Coordinator, leading programming, implementing and coordinating data management of the MAPme study. Previously, she was a senior faculty member at the University of Rwanda School of Dentistry, where she directed various clinical and community outreach initiatives alongside impactful research studies in both general and oral health. She possesses extensive experience in non-communicable disease research and is committed to addressing health disparities.

Jenipher is dedicated to promoting equity and accessibility while improving health outcomes through innovative research and public health interventions. In her role as a Clinical Research Coordinator, she will be working with both Dr. Tanicia Daley and Dr. Jessica Alvarez's research teams. She is eager to see how her skills and expertise will continue to positively shape the CF field.

## Researcher Spotlight: Dr. Lokesh Guglani

Congratulations to Lokesh Guglani, MD, FAAP, who has been promoted to Professor at Emory University and Children's Healthcare of Atlanta. This achievement recognizes his exceptional dedication to research, clinical care, and education in pediatric pulmonology.

Dr. Guglani's work has been transformational in understanding and management of cystic fibrosis (CF), particularly in early detection and monitoring of airway damage. His recent projects have focused on harnessing cutting-edge imaging, artificial intelligence, and device innovation with the goal of improving patient outcomes and accelerating the path to diagnosis and treatment.



### *Notable research contributions include:*

- **Pioneering AI-Driven Radiomic Biomarkers:** Dr. Guglani leads the development of automated, quantitative airway analysis tools for early detection of airway damage in CF, overcoming the limitations of manual CT scoring systems like PRAGMA-CF.
- **Innovative Diagnostic Devices:** He is spearheading the creation of a novel sweat testing device that integrates wearable technology and biosensors for point-of-care measurement of sweat chloride—a gold standard in CF diagnosis.
- **Translational Research in Lung Imaging:** From novel MRI sequences (Radial-VIBE) to high-speed video microscopy and airway organoid studies, his work bridges clinical practice and advanced imaging science.

### *Current key projects:*

- Non-invasive monitoring of airway inflammation in Primary Ciliary Dyskinesia (PCD)
- Analysis of deep intronic variants in PCD
- Automated AI-based airway segmentation and quantification in pediatric patients
- Novel wearable electronic breath sound sensors for asthma management
- AI algorithms for monitoring vascular changes in pediatric pulmonary hypertension and congenital heart disease
- Pulmonary and pancreatic pathology assessment in CF children treated with Trikafta
- Novel sweat chloride testing device for use in newborns and infants - developed in collaboration with researchers from Georgia Tech

Beyond his scientific contributions, Dr. Guglani is recognized for his approachable mentorship style, commitment to interdisciplinary collaboration, and dedication to advancing pediatric lung health on a global scale. Please join us in congratulating Professor Lokesh Guglani on his well-deserved promotion and celebrating his impactful work in pediatric pulmonary research and clinical practice!

# Publications Since Our Last Newsletter



## ***Kudos to our CF-AIR/CF@LANTA investigators***

AARC and PALISI Clinical Practice Guideline: Pediatric Critical Asthma, *Respir Care*, 2025 May.

Development of an acute lung injury model for drug testing, *Sci Rep*, 2025 May 21.

Single-cell profiling demonstrates the combined effect of wheeze phenotype and infant viral infection on airway epithelial development, *Sci Adv*, 2025 May 23.

Single-cell RNA-sequencing of circulating eosinophils from asthma patients reveals an inflammatory signature, *iScience*, 2025 May 26.

Investigating the Interplay Between Having Cystic Fibrosis and Being a Member of the LGBTQIA+ Community: Protocol for the PRIDE CF Study, *Pediatr Pulmonol*, 2025 Jun.

Vitamin D status in young adults with cystic fibrosis on highly effective CFTR modulator therapy, *Steroid Biochem Mol Biol*, Epub 2025 Jun 6.

Annual PM2.5 exposure and clinical, laboratory, and stroke-risk outcomes in pediatric sickle cell disease, *JCI Insight*, 2025 Jun 9.

Prevalence and phenotype of food allergy in children with cystic fibrosis, *Allergy Asthma Immunol*, 2025 Jun 21.

Optimizing Pediatric Asthma Management: Implementation and Evaluation of Anti-Inflammatory Reliever and Single Maintenance and Reliever Therapies, *Allergy Clin Immunol Pract*, 2025 Jul.

Improving Modulator Management and Side Effect Screening: A CF Learning Network Innovation Lab, *Pediatr Pulmonol*, 2025 Jul.

Military Inhalational Exposures Outside the Theater of Conflict and Chronic Respiratory Symptoms, *JAMA Netw Open*, 2025 Jul 1

Symptom factors and their clinical correlates among adults with cystic fibrosis, *Cyst Fibros*, 2025 Jul 8.

Inhibition of AhR improves cortical bone and skeletal muscle function via preservation of neuromuscular junctions, *JCI Insight*, 2025 Jul 15.

Association of 17q12-q21 Asthma Risk Locus with Clinical Severity of Infant Respiratory Syncytial Virus Infection, *Biomolecules*, 2025 Jul 22.

"All my food is customized\*": Barriers & facilitators concerning nutrition for persons living with cystic fibrosis, *J Cyst Fibros*, 2025 Jul 24.

The state of the academic medical center in allergy/immunology: Work Group Report of the AAAAI A/I Division Directors Committee, *J Allergy Clin Immunol*, 2025 Jul 25.

Single-Cell Multiome Impact of Prenatal Heavy Metal Exposure on Early Airway Development, *Am J Respir Cell Mol Biol*, 2025 Jul 30.

A Global Survey of Mental Health Treatment Experiences Among Food Allergy Patients and Caregivers, *J Allergy Clin Immunol Pract*, 2025 Aug.

Associations Between Socioeconomic Status and Adherence to Medications in People With Cystic Fibrosis, *Pediatr Pulmonol*, 2025 Aug.

***Click to link to the publication. Full citations available at <https://cfatl.org/recent-publications>.***



# Publications Since Our Last Newsletter



## ***Kudos to our CF-AIR/CF@LANTA investigators (continued)***

Evaluating the Impact of the COVID-19 Pandemic on Pediatric Asthma Incidence, *J Allergy Clin Immunol Pract*, 2025 Aug.

Introduction of allergenic foods after treatment with omalizumab, *J Allergy Clin Immunol*, 2025 Aug.

Bronchodilator Response in COPD: Definitions, Reference Equations, and Race, *Chronic Obstr Pulm Dis*, 2025 Aug 1.

Phenotype-Based Management of Recurrent Preschool Wheezing and Asthma, *J Allergy Clin Immunol Pract.*, 2025 Aug 5.

Integrative analysis of microbial 16S gene and shotgun metagenomic sequencing data improves statistical efficiency in testing differential abundance, *J Am Stat Assoc.*, 2025 Aug 5.

Conserved cross-domain protein-to-mRNA ratios enable proteome prediction in microbes, *mBio.*, 2025 Aug 13.

Quantification of RSV Antibodies in Human Plasma by Enzyme Immunoassays, *Methods Mol Biol*, 2025.

Secretory Expression and Purification of Respiratory Syncytial Virus G and F Ectodomain in Human Cells, *Methods Mol Biol*, 2025.

Conserved cross-domain protein-to-mRNA ratios enable proteome prediction in microbes, *mBio*, 2025 Aug 13.

Multipass CCS Refiner: A Web Application for Accurate Collision Cross Section Calibration in Cyclic Ion Mobility-Mass Spectrometry, *J Am Soc Mass Spectrom*, 2025 Aug 19.

AI in Palliative Care: A Scoping Review of Foundational Gaps and Future Directions for Responsible Innovation, *J Pain Symptom Manage*, 2025 Aug 21.

Stenotrophomonas maltophilia complex: A broadly distributed emerging pathogen, *PLoS Pathog*, 2025 Aug 21.

Lipid metabolism in age-related musculoskeletal disorders: insights into sarcopenia and osteoporosis, *BMC Biol*, 2025 Aug 22.

Combating resistance: natural products as tools to drive the discovery of untapped antibiotic targets, *Chem Commun (Camb)*, 2025 Aug 22.

Newborn Screening: The Time Is Now, *Clin Perinatol*, 2025 Sep; Epub 2025 Jul 1.

Circular RNA ROR $\beta$  regulates TGF $\beta$ R1 in alcohol-induced fibroblast-to-myofibroblast differentiation, *Sci Rep*, 2025 Sep 2.

Transformative Research in Cystic Fibrosis, *N Engl J Med*, 2025 Sep 11.

Relationship between skeletal muscle indicators and clinical outcomes in cystic fibrosis is modified by adiposity and CFTR modulator use: A cross-sectional analysis, *Am J Clin Nutr*, 2025 Sep 17.

**Click to link to the publication. Full citations available at <https://cfatl.org/recent-publications>.**

# CF-AIR Seminar Series, 2025-2026 Academic Year

FALL 2025 SCHEDULE			
Date	Time	Type	Presenter
1-Oct	1-2 PM	Guest Lecturer	Isabelle Sermet, MD, PhD (Necker Hospital, Paris, France)
2-Oct	1-2 PM	Research Highlight	Shu Takayama, PhD, MS (Georgia Tech)
9-Oct	12-2 PM	Journal Club	NACFC Practice Talk Session
16-Oct	1-2 PM	Trainee Focused	Molly Epstein, PhD (Emory University, Goizeta Business School)
30-Oct	1-2 PM	Social	Halloween
6-Nov	1-2 PM	Journal Club	What We Learned at NACFC
13-Nov	1-2 PM	Special Event	Joint Seminar with HeRO
20-Nov	1-2 PM	Trainee Focused	Ryan Lowhorn (Ga Tech)
4-Dec	1-2 PM	Guest Lecturer	Rob Quinn, PhD (Michigan State)
11-Dec	1-2 PM	Social	Holiday party/White Elephant
SPRING 2026 SCHEDULE			
Date	Time	Type	Presenter
8-Jan	1-2 PM	Journal Club	Jonica Brown
15-Jan	1-2 PM	Guest Lecturer	Stephanie Lovinsky-Desir, MD (Columbia University)
22-Jan	1-2 PM	Trainee Focused	Lauren Boitet, PhD (UAB)
29-Jan	1-2 PM	Research Highlight	Nael McCarty, PhD
5-Feb	1-2 PM	Guest Lecturer	Paul Kubes, PhD (U. of Calgary)
12-Feb	1-2 PM	Journal Club	Irina Miralda, PhD
19-Feb	1-2 PM	Trainee Focused	Liz McCarty and Amelia Randall
26-Feb	1-2 PM	Research Highlight	Drs. Tanicia Daley, Jessica Alvarez & Darko Stefanovski (UPenn)
5-Mar	1-2 PM	Guest Lecturer	Dr. Anupama Khare (NIH)
12-Mar	1-2 PM	Journal Club	Su Yeon Oh, MS
19-Mar	1-2 PM	Trainee Focused	Carleen Sabusap, PhD (MIT Museum)
26-Mar	1-2 PM	Research Highlight	Andrew Gewirtz, PhD (Georgia State)
2-Apr	1-2 PM	Guest Lecturer	Andrea Kelly, MD, MSCE (CHOP)
9-Apr	1-2 PM	Journal Club	Erica Browne
16-Apr	1-2 PM	Trainee Focused	Nathan Boyd, PhD (NIH)
23-Apr	1-2 PM	Research Highlight	Drs. Lisa Staimez, David Reiter & Priya Vellanki
30-Apr	1-2 PM	Social	Birthdays/Spring Potluck
7-May	1-2 PM	Guest Lecturer	Michelle Hastings, PhD (Michigan)
14-May	1-2 PM	Journal Club	JaNise Jackson, PhD
21-May	1-2 PM	Trainee Focused	Malinda Wu, MD, MSCR (Johns Hopkins)
28-May	1-2 PM	Research Highlight	Colin Swenson, MD

# Around the Research Organization



## Share your Research Wows!

Researchers, please be sure to share your recent research accomplishments through our Research Wows submission form [here](#). The information you provide will be used for internal and external reporting, as well as potential news and media coverage.

### FAQ's:

#### What type of information should I share?

- Impactful publications that have been accepted or published
- New, major grants that have been awarded
- New, major professional/service awards, distinctions, or recognitions received
- Other noteworthy research-related achievements (such as patents, IND, clinical trials, etc.)

#### Who will receive this information?

- Pediatric research center Program Managers and Center Directors
- Pediatric research leadership
- Marketing and communications teams

Please reach out to [Megan Stewart](#) with any questions. We look forward to hearing about your Research Wows!

## Pediatric Core Services

Our core services offer the equipment, tools, and skilled professionals to make research faster and more impactful. From imaging and data analysis to clinical trial support, pediatric cores provide key resources and expert support to help researchers at every step.

Researchers, check out details about our pediatric research core services [here](#) or via the QR code. For any questions or details, please reach out to Cores Administrator, [Julie Flores](#).



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