The mission of the Division of Pediatric Respiratory Medicine is to deliver outstanding and compassionate clinical care for pediatric patients with respiratory illness and become recognized regionally and nationally for clinical care, innovative scientific and qualitative research, all while remaining committed to the training of future pediatric health professionals.

Under the direction of the Chief of Respiratory Medicine, Andrew Gelfand, M.D., the division’s 12 physicians and other associated health care professionals comprise a team that work together to form a truly multidisciplinary program. Our overarching goal is to help develop programs in respiratory medicine that are highly respected and help lead the nation in clinical care and research. We also strive to recruit and sustain an excellent and diverse division of faculty committed to the mission of the division. Achievement of these goals will be done through the efforts of our 8 full time and 4 part time members of the Division of Respiratory Medicine. Each are dedicated to furthering the field of pediatric pulmonology and help create niches of expertise within the specialty. As our division is somewhat small for the volume of patients that we see, one of our major focuses over the next few years will continue to be growth. We are excited to announce that we have one new pulmonary/sleep physician joining us this year and are actively recruiting several others.

The Division provides care to infants, children, and young adults with a wide spectrum of respiratory illnesses, including disorders of respiratory control, the chest wall, respiratory muscles, airway and parenchyma. More specifically, we have programs to treat patients with asthma, high-risk asthma, cystic fibrosis, technology dependent patients who require chronic ventilation, neuromuscular disorders, bronchopulmonary dysplasia, primary ciliary dyskinesia, EVALI, hereditary hemorrhagic telangiectasia, and sleep disordered breathing. Additionally, we participate in multidisciplinary clinics to help in the management of patients with aerodigestive disorders and sickle cell disease.

- Inpatients are treated at Children’s Health locations of Children’s Medical Center Dallas and Our Children’s House.
- Outpatients are treated at Children’s Health Specialty Center, both in Dallas as well as the University of Texas Southwestern Frisco Campus.
- Chronically ventilated patients are seen at the Cityville location of Children’s Health for outpatient services.
- A large sleep program, with 20 beds divided between Dallas and Plano, also provides rooms for outpatient visits. We currently are developing plans to relocate the Plano Sleep Clinic and lab to a newer and larger location.
- We participate in a variety of multidisciplinary clinics to help improve the care delivered to our patients. Some of these clinics include cystic fibrosis, high-risk asthma, sickle cell, neuromuscular, sleep, hereditary hemorrhagic telangiectasia, and chronically ventilated children.
- We have been working diligently to have a center for patients with primary ciliary dyskinesia and hope to have a fully accredited center by early 2021.
- We continue to work on developing a center to help with the management of patients with pulmonary hypertension, but progress has been slow in recruiting for this program.
- We are leading the charge to improve safe sleep practices for infants within the hospital system.
- We continue to work on creating management pathways for patients diagnosed with EVALI (E-cigarette or Vaping product Associated Lung Injury) as well as for other at-risk patients causing lung injury through inhalation.
• Secondary to the pandemic, we have developed a robust telehealth program for our patients. We plan to continue using telehealth to improve access to care, especially for our patients with transportation difficulties and for those living greater than 50 miles away. Additionally, we will use these skills to develop telehealth consultation services, especially to neonatal intensive care units that we do not routinely visit. However, more manpower within the division may be necessary to help adequately staff this program.

Varied research interests include cystic fibrosis biology and care, near-fatal asthma, pulmonary outcomes in neuromuscular disease, pulmonary complications of sickle cell disease, pulmonary complications of obesity, and sleep-related disorders in children. We have also been engaged in research around social determinants of health for our cystic fibrosis population. We recently applied for a grant to study the effect of pulmonary rehabilitation using physical therapy to improve outcomes for obese moderate to severe asthmatics.

Division faculty are committed to the education and training of medical students, residents, and fellows. The Pediatric Pulmonology Fellowship Program prepares pediatricians to be experts in pulmonary medicine through a combination of educational activities, clinical experience, competencies such as bronchoscopy and pulmonary function testing, and assessment methods.

This year, we have developed a robust telehealth program that started secondary to concerns for Covid-19. We plan to keep and further develop our telehealth program as part of our outpatient clinical services with the goal of expanding to distant markets as well as via the school-based program at CMC in an effort to narrow health disparities.

Faculty

The Division has ten full-time and three part-time faculty members, and four fellows, all with varied interests in clinical and translational research. Dr. Princy Ghera joined the division in 2020.

Princy Ghera, MD
Associate Professor

M.D. (M.B.B.S.), Bachelors of Medicine and Bachelors of Surgery
Government Medical College, Patiala, Punjab, India, 2005

Postdoctoral Training
Residency, Combined Internal Medicine-Pediatrics
Marshfield Clinic, Marshfield, Wisconsin, 2008-2012

Fellowship, Pediatric Pulmonology
Nationwide Children’s Hospital, Columbus, Ohio, 2012-2015

Interests
Neuromuscular Disorders, Aerodigestive disorders, transitioning care to adults
2020 Honors / Awards

Best Pediatric Specialists in Dallas, *D Magazine*

- Steven Copenhaver
- Andrew Gelfand
- Tanya Martinez-Fernandez
- Devika Rao
- Yadira Rivera-Sanchez
- Peter Schochet

Texas Super Doctors, *Texas Monthly*

- Steven Copenhaver
- Andrew Gelfand
- Peter Schochet

Invited Lectures

Elisa Basora

- New Pediatric Ward at Sint Jan Hospital, Bruges, Belgium, March 2020
  - “Pediatric Sleep Disorders”
- New Pediatric Ward at Sint Jan Hospital, Bruges, Belgium, March 2020
  - “Bronchopulmonary Dysplasia and O2 Dependence”
- New Pediatric Ward at Sint Jan Hospital, Bruges, Belgium, March 2020
  - “Down Syndrome and Sleep Disordered Breathing”
- Miami Pediatric Pulmonology Division, July 2020
  - “Respiratory Physiology Lecture Series Part I”
- Miami Pediatric Pulmonology Division, July 2020
  - “Respiratory Physiology Lecture Series Part II”
- Miami Pediatric Pulmonology Division, July 2020
  - “Respiratory Physiology Lecture Series Part III”

Yadira Rivera-Sanchez

- University of Puerto Rico, Medical Sciences Campus Department of Pediatrics, December 2020
  - “New therapeutics in Cystic Fibrosis”

Devika Rao

- Pediatric Society of Greater Dallas, Dallas, TX, February 2020
  - “The Truth About Vaping”
- CF Foundation North Texas Chapter, Dallas, TX, May 2020
  - “COVID 19: how to protect your family: presentation and Town hall discussion”
- CF Foundation North Texas Chapter, Dallas, TX, June 2020
  - “COVID 19 and CF Town Hall”
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- CF Foundation North Texas Chapter, Dallas, TX, July 2020
  - “COVID 19, CF and School attendance: what we know so far”

- Webinar for School Nurses, August 2020
  - “Navigating Asthma during the Covid Pandemic: Guidance for School Nurses”

Preeti Sharma

- 65 Roses, Dallas, TX, February, 2020
  - “A CF Clinical Update”

Conference Presentations

American Thoracic Society (ATS) Meeting
Virtual, Philadelphia, May 2020
Araji F, Brown L, Yallapragada S, Rao D.
Poster Presentation, “Weight Gain after Tracheostomy Placement in Preterm Infants with Bronchopulmonary Dysplasia and Pulmonary Hypertension”

Rao DR
Moderate Poster Discussion Session: “Case reports: E-cigarette associated lung injury”

Poster Presentation: “A case of EVALI leading to tracheostomy and ECMO”

Other Conferences

Gupta AT, Lieu T, Maple K, Mittal V, Rao DR.
American Academy of Pediatrics Annual Conference Virtual October 2020
Poster Presentation, “Understanding Psychosocial Comorbidities in Adolescents with E-cigarette or Vaping, Product-Use Associated Lung Injury (EVALI)”

Rao DR
Children’s Health Rehabilitation and Therapy Symposium, August 2020
“Rehabilitation Considerations in Children with Ventilators”

Xie L, Gelfand A, Martinez T, Rivera-Sanchez Y, Atem F, Messiah SE.
Texas Public Health Association Annual Education Conference Dallas TX/Virtual, December 2020
Poster Presentation: “Association between asthma and developmental disabilities in the United States pediatric population; a cross sectional study”

Media Appearances/Interviews

Michelle Caraballo

- CBS news, March 2020
  - “Adjusting to Daylight Saving”
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- Interview on WFAA – September 2, 2020
  “Importance of sleep and wake sleep routines during the pandemic”

Preeti Sharma

- NBC5DFW, September 2020
  "Flu Vaccines"

- WFAA Dallas, September 2020
  "Flu Shots and COVID"

- KRLD Radio Dallas, September 2020
  "Flu Vaccination"

- Children’s Health Dallas Primary Care Provider Town Hall, September 2020
  "Flu Vaccines: True or False"

- CBS11 Dallas, October 2020
  "The upcoming flu season"

- KRLD Radio Dallas, October 2020
  "Flu and COVID 19"

- KRLD Radio Dallas, October 2020
  "Flu Vaccines"

Andrew Gelfand

- Doctor’s Radio Sirius XM, Pediatrics - On Call for Kids, August 2020
  Interview, “Association between asthma and developmental disabilities in the United States pediatric population: a cross-sectional study”

Devika Rao

- UT Southwestern Medical Center Newsroom, June 2020
  “Teen vaping study identifies stomach issues and history of substance abuse.”

- Children’s Health. UT Southwestern Medical Center, August 2020
  Co-chaired task force, Guidance provided for families of children with chronic medical conditions,
  “COVID-19 Back-to-school guidance.”

- Interview with NBC DFW channel 5. September 2020
  “Doctors see spike in lung injuries from vaping teens.”

- Interview with CBS DFW Channel 11, September 2020
  “Study Suggests Vaping May Be Associated With Increased Risk Of Coronavirus For Teens, Young Adults.”
Multiple Division Members

- On May 15th, 5-6 members of the division gave a Town Hall for Children’s Health - Covid-19 update to parents of children with chronic respiratory conditions. First division to address our patients and families about COVID-19.

Education and Training

The Division of Pediatric Respiratory Medicine provides educational opportunities for medical students and pediatric residents, in addition to our accredited fellowship program.

Medical Students

A full curriculum based on the core competencies as published by the Council on Medical Student Education in Pediatrics (COMSEP) is taught through bedside clinical supervision and daily rounds, in addition to various didactic sessions and interactive case-based discussions facilitated by faculty in nearly all divisions in the Department of Pediatrics. The entire curriculum is reviewed on an ongoing basis through feedback from UT Southwestern Medical School faculty, national regulatory agencies, and students themselves. Students rotating through the core clerkship continue to outpace national averages on standardized assessments.

Medical students participate in outpatient specialty clinics staffed by members of the Division of Pediatric Respiratory Medicine faculty. During clinic sessions, medical students receive individualized, one-on-one teaching by the faculty. Third year medical students participate on the inpatient pulmonary service. As part of their rotation and under the supervision of the Division faculty, they are assigned to obtain the history, complete the physical exam, and present their patients during daily rounds.

Residents

The evaluation of children with respiratory problems is an integral component of the practice of pediatric medicine. Respiratory symptoms and problems are the most common reason for childhood physician encounters and are the number one cause of school absenteeism and hospital admission. Hence, it is essential that the pediatric resident becomes familiar with the recognition, diagnosis, and care of respiratory diseases. The overall goal of the Pediatric Respiratory Medicine rotation is to provide residents with intensive exposure to a broad spectrum of pulmonary disorders, in order to highlight principles of diagnosis and management, and the respective roles played by the pediatrician and pulmonary subspecialist, as well as other disciplines in the management of often very complex patients.

The Pediatric Pulmonary rotation has been designed for first year as well as senior general pediatric residents. Goals are aimed at gaining experience in the daily management of children with known as well as presumptive pulmonary disorders. Expectations include the demonstration of medical knowledge, comprehension of pathophysiology, development of differential diagnoses, and development of increased independence in the formulation of management plans. In addition, residents should maintain an overall awareness of the high acuity of the patients on the inpatient service which in turn helps improve critical thinking.

Yadira Rivera-Sanchez, M.D., directs the Pediatric Respiratory Medicine Resident Education Program.
Fellows

Under the direction of Dr. Tanya Martinez as Pediatric Pulmonology Fellowship Director and Dr. Preeti Sharma as the associate director, the mission of our accredited Pulmonology Fellowship training is to prepare future generations of postgraduate pediatricians to become expert clinicians and join a diverse workforce in our field. By providing training that combines high-quality education and research, we aim to produce culturally competent, compassionate, and clinically skilled lifelong learners. It is our goal that training in our large academic and research institution provides comprehensive clinical exposure and education in pediatric pulmonology. Contact with a diverse patient population and thus broad pathology in pediatric pulmonary medicine at Children's Health leads to the development of strong clinical acumen. UT Southwestern Medical Center offers opportunities in clinical, basic and/or translational research and medical education. Consequently, our graduates are prepared to join national or international academic, public, or private pediatric pulmonology practices to further develop individual interests.

Program Aims:

1. Provide a high-quality 3-year curriculum that will prepare postgraduate pediatricians with the clinical skills to diagnose and manage a range of common and rare pediatric pulmonary diseases.

2. Train compassionate, clinically skilled, culturally competent and lifelong learners through exposure to a dynamic, diverse and growing multicultural population.

3. Educate fellows to independently practice and become excellent leaders of clinical care teams that will provide comprehensive, safe, high-quality, family-centered patient care in pediatric pulmonology.

4. Prepare trainees for academic careers by delivering fulfilling experiences and education on research development, quality improvement, and patient safety.

5. Develop individualized learning plans with fellows that drive educational opportunities to stimulate, prepare, and help achieve career goals.

6. Promote strategies that lead to wellness and resilience within the fellowship program.

7. Enable trainees to qualify and successfully complete requirements for board certification in pediatric pulmonology.

The mission of our accredited Pulmonology Fellowship Training Program is to prepare postgraduate pediatricians to be experts in pulmonary medicine. Training is through a combination of educational activities, competencies, and assessment methods, including patient care, guided reading, and discussion with regards to organization, business planning, and management of the pediatric pulmonary service and research methodology.

Under the direction of Tanya Martinez Fernandez, M.D., and overseen by the ACGME, our three-year Fellowship Program began in July 2011. The majority of fellowship education is through didactic conferences and active participation in the inpatient, outpatient, and consulting services.
Clinical Research:

The Division’s research efforts focus on areas of clinical expertise within the faculty. The division is primarily clinically oriented, investigator initiated research from within our division is a long term goal. However, mentioned are some of the grants and projects in which members of the division are currently participating.

- Dr. Preeti Sharma’s research continues to incorporate clinical drug trials through the Cystic Fibrosis Foundation and the Therapeutics Development Network, studying CFTR modulator therapies in infants and young children, infection control and prevention, as well as the use of novel anti-infectives in severe pulmonary infection. She has expanded her focus on optimizing clinical care in Cystic Fibrosis to include assessing barriers related to access to care by investigating social determinants of health care in the CF population and how that affects care across the continuum. As a part of the national Success with Therapies Research Consortium, she has been investigating more patient and family-centered care models and how that affects nutritional outcomes and adherence. She has led the CF team in many quality improvement projects, ranging from addressing length of inpatient stay to creation of an algorithm for treating pulmonary exacerbation. CF research endeavors have increased in number, and Dr. Sharma and team members have received national recognition from the CF Foundation and other research collaborative groups that they have continued to participate in. The CF center’s robust quality improvement initiatives earned a Quality Care Award from the Cystic Fibrosis Foundation. The CF center has been invited to participate in new QI initiatives launched by the CF Learning network - Innovation Labs (iLabs) and has been the lead center on projects such as the Telehealth iLab and the FIES (FEV1 indicated exacerbation signal) iLab. We have continued to grow the clinical research enterprise and have been leaders in enrolling patients in modulator studies.

- Dr. Devika Rao’s research interests lie in the realm of lung damage caused by the effects of e-cigarettes and vaping products. She successfully published an article in Pediatrics this year on describing the injury as well as a diagnosis and treatment algorithm. She presently is applying for a grant to study “Nicotine and Other substances Vaped by Adolescents and Pulmonary Effects (NoVAPE): A Pilot Study on Lung Function Outcomes in Adolescent E-cigarette Users.” She also has a strong interest in pulmonary complications of sickle cell disease. She secured a grant from Children’s Medical Center to describe The six-minute walk test in children with sickle cell disease: a cross-sectional study. She also plans to track outcomes of children with SCD and vaso-occlusive crisis with hypoxia, for whom non-invasive bi-level ventilation is used. She also plans to collaborate with physical therapy to improve breathing mechanics of children with sickle cell disease.

- Dr. Preeti Sharma, along with help from Dr. Andrew Gelfand, recently submitted a grant proposal to study: The Role of Physical Therapy in the Management of Children with Asthma and Obesity. Hopefully, with positive results, this will help us expand the role of pulmonary rehabilitation within our clinic setting.

- Sleep positioning and other aspects of sudden infant death syndrome risk prevention are the focus of Dr. Michelle Caraballo’s research. She continues to work on a project to promote safe sleep in the hospital setting.

- Dr. Kamal Naqvi’s investigative efforts involve pediatric sleep disorders, including narcolepsy. The sleep program, under Dr. Naqvi’s direction, also participates in numerous multicenter research trials.
The respiratory consequences of early-onset scoliosis and neuromuscular disease are the focus of Dr. Peter Schochet’s research.

Dr. Elisa Basora has research interests in pediatric sleep medicine. She is also involved in the safe sleep project.

The optimization of care of children with asthma is the focus of the scholarly pursuits of Dr. Yadira Rivera-Sanchez and Dr. Tanya Martinez.

**Clinical Activities**

The Pediatric Respiratory Medicine Division offers both inpatient and outpatient consultation for a wide variety of respiratory and sleep disorders in children.

**Inpatient Services**

The inpatient population consists primarily of patients with cystic fibrosis, chronic respiratory failure on mechanical ventilation and patients with neuromuscular diseases hospitalized for an acute respiratory process. If we have bed availability, we also like to manage patients with high-risk asthma as well as less common pulmonary issues, such as primary ciliary dyskinesia, hereditary hemorrhagic telangiectasia, and idiopathic pulmonary hemosiderosis, as well as other interstitial lung diseases. We do frequently admit patients with tenuous airways or who need non-invasive mechanical ventilation when ICU acuity is no longer needed. We also provide a consultation service to help with the needs of the rest of the hospital. This service typically has 20-30 patients, and we help advise respiratory management to patients throughout the hospital, including the Pediatric intensive care unit, the Cardiovascular intensive care unit and the Neonatal intensive care unit, as well as to the general and other specialty services. We also provide bronchoscopy services when indicated.

Dr. Yadira Rivera-Sanchez oversees the inpatient activities of the Division. There is an attending pulmonologist assigned to the Pediatric Respiratory Medicine Service as well as the consultation service at all times.

**Outpatient Services**

Outpatient activities are comprehensive and primarily centered on a busy general pulmonology practice. Physicians combine their efforts with a group of talented and dedicated nurse practitioners, who conduct clinical consultations on selected patients. Additionally, the pulmonary division directs a few programs that also deserve mentioning.

- Tanya Martinez Fernandez, M.D., has led the development and organization of the outpatient clinics.
- The Pediatric Cystic Fibrosis program, one of the largest in the country with over 300 pediatric patients, is co-directed by Dr. Preeti Sharma from Pediatric Respiratory Medicine and Dr. Meghana Sathe from Pediatric Gastroenterology. The center 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. The cystic fibrosis care center continues to grow and provide outstanding clinical care and cutting-edge research to the children of North Texas and beyond. We are also founding members of the CF Learning Network and participate in the national Success with Therapies Research Consortium.
- Pediatric Sleep Program – under the direction of Kamal Naqvi, M.D., our sleep center provides comprehensive care for all pediatric sleep disorders, including obstructive and central sleep apnea, narcolepsy, hypersomnia, insomnia, circadian rhythm disorders, and behavioral sleep disorders. A licensed sleep psychologist offers cognitive behavioral therapy for insomnia (CBTI). Two PAP specialists provide mask fitting sessions and expertise for other equipment-related issues. Our 20-bed sleep lab (divided between Dallas and Legacy
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campuses) performs over 4,000 outpatient sleep studies per year and inpatient sleep studies as needed, including diagnostic sleep studies, PAP titration studies, multiple sleep latency tests and maintenance of wakefulness tests. The sleep program also participates in numerous multicenter research trials. We are presently designing a new, larger sleep clinic and lab in Plano to better serve our patients.

- Peter Schochet, M.D., conducts specialized clinics on neuromuscular and chest wall related respiratory diseases. Elisa Basora, M.D., and Michelle Caraballo, M.D., continue to participate in a multidisciplinary clinic for young patients with Duchenne’s Muscular Dystrophy. Dr. Princy Ghera is our newest faculty member but has a strong interest in Neuromuscular disorders. She would like to help develop a multidisciplinary young Spinal Muscular Atrophy clinic. Also, as she is Internal Medicine and Pediatrics trained, she has an interest in helping us develop a transition to adult medicine clinic for our patients with neuromuscular disorders.

- In 2015, Dr. Devika Rao founded a Pulmonary-Sickle Cell interdisciplinary clinic to address pulmonary needs of children with sickle cell anemia. This clinic takes place at the Pauline Allen Gill Center for Cancer and Blood Disorders once each month.

- Devika Rao, M.D., is Director of the Pulmonary Function Lab, Children’s Health. The pulmonary function lab has greater than 1,000 visits per month. We have a fully functioning lab with the ability to do spirometry, body plethysmography, FeNO, methacholine and exercise challenges, and other measures of pulmonary function.

- Yadira Rivera-Sanchez, M.D., co-directs the Aerodigestive Multidisciplinary Clinic, which is conducted with the pediatric otolaryngology and gastroenterology services. Dr. Ghera participates in this clinic, as well.

- Drs. Yadira Rivera-Sanchez and Tanya Martinez-Fernandez co-direct the High-Risk Asthma clinic. This multidisciplinary clinic is improving the care to some of our most serious patients with life threatening asthma. We are working to expand this clinic by incorporating allergy, nutrition, social work, and physical therapy.

- Andrew Gelfand, M.D., directs the ventilator clinic. This is a multidisciplinary clinic involving ENT, Physiatry, respiratory therapy, nursing, social work, radiology, nutrition, and case management. Here we follow over 200 patients with chronic mechanical ventilator needs from a variety of causes such as bronchopulmonary dysplasia, neuromuscular weakness, congenital heart disease, high spinal cord injury, neurologically impaired children with poor control of breathing as well as other causes of respiratory insufficiency.

- Dr. Preeti Sharma directs the Hereditary Hemorrhagic Telangiectasia (HHT) clinic. She has partnered with the adult HHT center, Interventional Radiology, Hematology, and Gastroenterology to provide ease of care and increased benefit to these patients.
**Patient Care Guidelines**

Division members have been actively engaged in the establishment of patient care guidelines, including for the evaluation and implementation of non-invasive ventilation in infants at home, for the care of asthma patients, and for tracheostomy care.

**Patient Statistics**

Respiratory Medicine Patient Stats by Locations by Type by Clinic. Also Includes Patient Procedures by Locations.

<table>
<thead>
<tr>
<th>Pulmonary at Children's Medical Center Dallas</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inpatient admissions</td>
<td>478</td>
<td>402</td>
<td>341</td>
</tr>
<tr>
<td>Inpatient consultations</td>
<td>1181</td>
<td>1779</td>
<td>1205</td>
</tr>
<tr>
<td><strong>New outpatient Visits</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pulmonary</td>
<td>3029</td>
<td>3108</td>
<td>2,699</td>
</tr>
<tr>
<td>CF</td>
<td>1061</td>
<td>1249</td>
<td>1,104</td>
</tr>
<tr>
<td>Sleep</td>
<td>76</td>
<td>64</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>1,892</td>
<td>1795</td>
<td>1,560</td>
</tr>
<tr>
<td><strong>Outpatient follow up</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pulmonary Clinic</td>
<td>9804</td>
<td>11224</td>
<td>9,481</td>
</tr>
<tr>
<td>CF Clinic</td>
<td>5571</td>
<td>6,096</td>
<td>5,223</td>
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<tr>
<td>Sleep Clinic</td>
<td>1,824</td>
<td>2,072</td>
<td>1,667</td>
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<tr>
<td></td>
<td>2,409</td>
<td>3,056</td>
<td>2,591</td>
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<table>
<thead>
<tr>
<th>Pulmonary at Children's Plano</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>New outpatient visits</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pulmonary Clinic</td>
<td>513</td>
<td>565</td>
<td>217</td>
</tr>
<tr>
<td>CF Clinic</td>
<td>315</td>
<td>303</td>
<td>33</td>
</tr>
<tr>
<td>Sleep Clinic</td>
<td>0</td>
<td>9</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>198</td>
<td>253</td>
<td>184</td>
</tr>
<tr>
<td><strong>Outpatient follow up</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pulmonary Clinic</td>
<td>974</td>
<td>931</td>
<td>244</td>
</tr>
<tr>
<td>CF Clinic</td>
<td>559</td>
<td>562</td>
<td>51</td>
</tr>
<tr>
<td>Sleep Clinic</td>
<td>163</td>
<td>135</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>252</td>
<td>234</td>
<td>189</td>
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</table>

<table>
<thead>
<tr>
<th>Procedures</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sleep studies – Dallas</td>
<td>2,351</td>
<td>2,757</td>
<td>1512</td>
</tr>
<tr>
<td>Sleep studies – Plano</td>
<td>1,882</td>
<td>1,995</td>
<td>1051</td>
</tr>
<tr>
<td>Pulmonary function testing</td>
<td>12,379</td>
<td>12,808</td>
<td>3124</td>
</tr>
<tr>
<td>Laboratory procedures</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bronchoscopies</td>
<td>155</td>
<td>124</td>
<td>62</td>
</tr>
</tbody>
</table>

*Updated 2018, 2019 outpatient totals to include CF Clinic & Sleep Clinic*
Current Grant Support

Syed Naqvi

Grantor: Cincinnati Children’s Hospital Medical Center  
**Title of Project:** A Multicenter Retrospective with Prospective Follow-Up Study of Early Onset Childhood Narcolepsy: Recent cases and Post infection  
**Role:** Co-principal Investigator  
**Dates:** 11/2017 – 11/2022

Grantor: Syneos Health  
**Title of Project:** A Double-Blind, Placebo-Controlled, Randomized-Withdrawal, Multicenter Study of the Efficacy and Safety of Xyrem with an Open-Label Pharmacokinetic Evaluation and Safety Extension in Pediatric Subjects with Narcolepsy with Cataplexy.  
**Role:** Co-principal Investigator  
**Dates:** 03/2016 – 02/2020

Preeti Sharma

Grantor: Abbott Laboratories and Janssen Research and Development LLC  
**Title of Project:** 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:** Co-principal Investigator  
**Dates:** 2013 – 2020

Grantor: Cystic Fibrosis Foundation  
**Title of Project:** Success with Therapeutics Research Consortium Application  
**Role:** Co-principal Investigator  
**Dates:** 08/2018 – 07/2021

Grantor: Cystic Fibrosis Foundation  
**Title of Project:** TX-34/34 - Care Center Award - Year 8  
**Role:** Co-principal Investigator  
**Dates:** 07/2020 – 06/2021

Grantor: Cystic Fibrosis Foundation  
**Title of Project:** TX-34/34 - Care Center Award - Year 7  
**Role:** Co-principal Investigator  
**Dates:** 07/2019 – 06/2020

Grantor: Cystic Fibrosis Foundation  
**Title of Project:** Therapeutic Drug Development Network  
**Role:** Co-principal Investigator  
**Dates:** 2018 – 2020

Grantor: Cystic Fibrosis Therapeutics  
**Title of Project:** Additional Research Coordinator Award  
**Role:** Co-principal Investigator  
**Dates:** 2016 – 2020
Grantor: Cystic Fibrosis Foundation / Cincinnati Children’s Hospital
Title of Project: CFC3N – Pilot Learning Network for Enhancing Quality Care
Role: Co-principal Investigator
Dates: 2017 – 2020

Grantor: Iqvia RDS, Inc.
Title of Project: A retrospective Observational Study in Cystic Fibrosis Patients with Chronic Respiratory Pseudomonas Aeruginosa Infection Treated with TOBI Podhaler (Tobramycin Inhalation Powder) or Other FDA Approved Inhaled Antipseudomonal Antibacterial Drugs
Role: Sub-investigator
Dates: 02/2015 – 02/2022

Grantor: Savara, Inc.
Title of Project: A Phase III, Randomized, Double-blind, Placebo-controlled Study of AeroVanc for the Treatment of Persistent Methicillin Resistant Staphlococcus Aureus Lung Infection in Cystic Fibrosis Patients
Role: Principal Investigator
Dates: 04/2018 – 04/2020

Grantor: University of North Carolina at Chapel Hill
Title of Project: STaph Aureus Resistance-Treat Early and Repeat (STAR-TER)
Role: Co-Principal Investigator
Dates: 01/2019 – 12/2020

Grantor: Vertex Pharmaceuticals, Inc.
Title of Project: A Phase 3, 2-part, Open-label Study to Evaluate the Safety and Pharmacokinetics of Lumacaftor/Ivacaftor in Subjects 1 to Less Than 2 Years of Age with Cystic Fibrosis, Homozygous for F508del
Role: Principal Investigator

Peer-Reviewed Publications


**Case Reports**


**Book Chapters**