

Division Details

Division Data Summary

Research and Training Details

Number of Faculty	21
Number of Joint Appointment Faculty	4
Number of Research Fellows	2
Number of Research Students	8
Number of Support Personnel	39
Direct Annual Grant Support	\$1,582,789
Direct Annual Industry Support	\$133,945
Peer Reviewed Publications	48

Clinical Activities and Training

Number of Clinical Staff	58
Number of Clinical Fellows	9
Number of Other Students	7
Inpatient Encounters	1,796
Outpatient Encounters	7,518

Division Photo



Row 1: J Crisalli, N Simakajornboon, B Chini, C Kercsmar, K McDowell
Row 2: L Burns, P Boesch, C Torres-Silva, P Joseph, R Amin
Row 3: N Gurbani, T Clegg, D Grosseohme, R Wood
Row 4: S Madala, R Bokulic, W Hardie

Significant Accomplishments

New Developments in Cystic Fibrosis

Cystic fibrosis is a disorder affecting over 30,000 patients in the US and >70,000 worldwide. Mutations in the CF gene lead to defects in the CFTR protein, which works as a regulator of salt and water movement throughout the body. CF patients develop problems with mucus in the lungs and abnormal food absorption that lead to lung infections, poor growth, and death in early adulthood. Although improvements have been made in CF patient care for several decades, all previous therapies have targeted downstream symptoms of CF rather than early steps in the disease cascade.

2012 has been very exciting for the CF community in that the first drug that targets the root cause of CF gained FDA approval (kalydeco or ivacaftor, Vertex Pharmaceuticals). This pill helps restore activity to one of the mutant proteins that causes CF (G551D, found in about 5% of CF patients). Adult and pediatric patients with CF caused by this mutation that were treated with kalydeco had >10% improvements in lung function, gained more weight than the untreated patients, and reduced their risk of pulmonary exacerbations by >50%.

A second drug, lumacaftor, completed phase II clinical trials in CF patients with the most common CF causing mutation (F508del, found in nearly 90% of CF Patients). These studies were led by Dr. Clancy at CCHMC and demonstrated its capacity to restore function in patients carrying this mutation. Phase II studies are in progress, and Phase III studies are targeted for late 2012.

NIH Training Grant Awarded

Our division was one of only two pediatric pulmonary centers in the United States to receive the National Institute of Health Ruth L. Kirschstein National Research Service Award (NRSA) program this year. The program provides funding for research training opportunities for medical students in basic or clinical research in pediatric pulmonary and sleep medicine areas. This research program is active in the summer between the first and second years of medical school. Eight applicants in the inaugural class were selected from students applying from medical schools in the South, Midwest and East Coast. Students were matched with mentors covering a variety of pediatric respiratory research areas including asthma, cystic fibrosis, lung cancer and sleep apnea. The strengths of our research programs, combined with an enthusiastic faculty and a well-organized summer program, provide an excellent opportunity to attract physician trainees at critical stages in their careers and increase the likelihood they will want to further pursue research as physician-scientists.

Carolyn Kercksmar awarded grant from Schroth Family Charitable Trust

In December 2011, the PNC Bank Charitable Trust Committee awarded the Asthma Center a grant of \$150,000 from the John A. Schroth Family Charitable Trust. The funding supports a project to develop multimedia discharge instructions for patients with asthma, helping to improve asthma control and decrease re-admissions.

Carolyn Kercksmar, MD, Director of the Asthma Center, will lead this innovative project, focused on helping families with low health literacy. The specific aims of the study are to create and examine the acceptability of multimedia discharge instructions for caregivers of hospitalized children with asthma, particularly those with poor health literacy levels. The project will also determine the short-term efficacy of providing personalized, multimedia discharge instructions to caregivers of children hospitalized for treatment of asthma exacerbation. The study will feature the child and parent as “stars” in their own educational video to enhance viewing and increase understanding of asthma management skills. Overall goals are to reduce the use of emergency department and inpatient services due to asthma, and to improve the percentage of patients with well controlled asthma in the Greater Cincinnati community. Cincinnati Children’s is known to be a leader in innovative programs and local children can benefit from our advances in asthma care. Knowledge gained from an effective care model created in Cincinnati can also spread to other programs nationwide.

Significant Publications

Madala SK, Maxfield MD, **Davidson CR**, **Schmidt SM**, **Garry D**, Ikegami M, **Hardie WD**, Glasser SW. **Rapamycin Regulates Bleomycin-Induced Lung Damage in SP-C-Deficient Mice.***Pulm Med.* 2011;2011:653524. Epub Nov 6 2011.

Injury to the distal respiratory epithelium has been implicated as an underlying cause of interstitial lung disease (ILD). This study utilized a mouse model of human ILD associated with surfactant protein C (SP-C) deficiencies to investigate whether rapamycin, an immunosuppressant drug that can regulate cell growth, proliferation, and survival, could ameliorate induced fibrosis in the lungs when administered either preventatively or therapeutically. Results of this study suggest that the use of novel therapeutics will be required to treat individuals with SP-C-deficient ILD.

Clancy JP, Rowe SM, Accurso FJ, Aitken ML, **Amin RS**, Ashlock MA, Ballmann M, Boyle MP, Bronsveld I, Campbell PW, De Boeck K, Donaldson SH, Dorkin HL, Dunitz JM, Durie PR, Jain M, Leonard A, McCoy KS, Moss RB, Pilewski JM, Rosenbluth DB, Rubenstein RC, Schechter MS, Botfield M, Ordoñez CL, Spencer-Green GT, Vernillet L, Wisseh S, Yen K, Konstan MW. **Results of a phase IIa study of VX-809, an investigational CFTR corrector compound, in subjects with cystic fibrosis homozygous for the F508del-CFTR mutation.***Thorax.*

2012. 67(1):12-8. Epub Aug 10 2011.

In this clinical trial, the safety, tolerability, and pharmacodynamics of the cystic fibrosis transmembrane conductance regulator (CFTR) modulator VX-809, which is known to increase the cell-surface density of functional F508del-CFTR in vitro, were evaluated in adult cystic fibrosis patients homozygous for this CFTR mutation. VX-809 was found to have an adverse-event profile similar to placebo, suggesting it to be safe and well-tolerated, and demonstrated biological activity with a positive impact on CFTR function in the sweat gland. Future studies will determine how VX-809-induced CFTR-function improvements in the sweat gland relate to those measurable in the respiratory tract and to long-term measures of clinical benefit.

Boesch RP, Myers C, Garrett T, Nie A, Thomas N, Chima A, **McPhail GL**, **Ednick M**, Rutter MJ, **Dressman K**. **Prevention of tracheostomy-related pressure ulcers in children.** *Pediatrics*. 2012. 129(3):e792-7. Epub Feb 22 2012.

Pressure ulcers are commonly acquired in pediatric institutions and are a key indicator of the standard and effectiveness of patient care. This report provides results from a quality improvement program that was instituted to develop and test potential interventions for the prevention of tracheostomy-related pressure ulcers (TRPUs) in an effort to improve the care of tracheostomy-dependent patients. Results included a significant decrease in the percentage of patients who developed TRPUs, from 8.1% during the baseline period to 0.3% after intervention. Education, ongoing assessment of skin integrity, and the use of devices that minimize pressure at the tracheostomy-skin interface were found to be interventions that can be integrated into daily workflow and that effectively reduce TRPUs, even among patients at high risk for them.

Seid M, D'Amico EJ, Varni JW, Munafo JK, Britto MT, **Kercsmar CM**, Drotar D, King EC, Darbie L. **The in vivo adherence intervention for at risk adolescents with asthma: report of a randomized pilot trial.** *Journal of pediatric psychology*. 2012. 37(4):390-403. Epub Dec 15 2011.

Low-income and minority adolescents are at high risk for poor asthma outcomes, due in part to possible problems with adherence to self-care techniques. Acceptability, feasibility, and effect sizes of an adherence intervention for low socioeconomic status minority youth with moderate- and severe-persistent asthma were tested in this study. Motivational interviewing, problem-solving skills training, and tailored text messaging were considered acceptable and feasible by participants, and resulted in improved asthma symptoms based on clinically meaningful medium to large effect sizes.

Redline S, **Amin R**, Beebe D, Chervin RD, Garetz SL, Giordani B, Marcus CL, Moore RH, Rosen CL, Arens R, Gozal D, Katz ES, Mitchell RB, Muzumdar H, Taylor HG, Thomas N, Ellenberg SI. **The Childhood Adenotonsillectomy Trial (CHAT): rationale, design, and challenges of a randomized controlled trial evaluating a standard surgical procedure in a pediatric population.** *Sleep*. 2011. 34(11):1509-17. Epub Nov 2 2011.

The Childhood Adenotonsillectomy Trial (CHAT) established in this study was designed to assess neuropsychological and health outcomes in children randomized to receive early adenotonsillectomy (AT) procedures as compared to Watchful Waiting with Supportive Care in order to evaluate the effectiveness of AT for not only improving sleep-disordered breathing, but also for improving clinically relevant outcomes, such as neurocognitive function, behavior, and quality of life. Key elements in the design and implementation of a controlled trial for a widely used "standard practice" surgical intervention in a pediatric population are defined, establishing a useful template for other pediatric controlled studies or other studies that evaluate surgical interventions.

Division Publications

1. Black MH, Anderson A, Bell RA, Dabelea D, Pihoker C, Saydah S, Seid M, Standiford DA, Waitzfelder B,

- Marcovina SM, Lawrence JM. **Prevalence of asthma and its association with glycemic control among youth with diabetes.** *Pediatrics*. 2011; 128:e839-47.
2. Boesch R, Wood R. **Aspiration.** *Kendig and Chernick's Disorders of the Respiratory Tract in Children*. Philadelphia, PA: Elsevier/Saunders; 2012:947-956.
 3. Boesch RP, Myers C, Garrett T, Nie A, Thomas N, Chima A, McPhail GL, Ednick M, Rutter MJ, Dressman K. **Prevention of tracheostomy-related pressure ulcers in children.** *Pediatrics*. 2012; 129:e792-7.
 4. Byars KC, Yeomans-Maldonado G, Noll JG. **Parental functioning and pediatric sleep disturbance: an examination of factors associated with parenting stress in children clinically referred for evaluation of insomnia.** *Sleep Med*. 2011; 12:898-905.
 5. Byars KC, Yoltan K, Rausch J, Lanphear B, Beebe DW. **Prevalence, patterns, and persistence of sleep problems in the first 3 years of life.** *Pediatrics*. 2012; 129:e276-84.
 6. Cabral RM, Tattersall D, Patel V, McPhail GD, Hatzimasoura E, Abrams DJ, South AP, Kelsell DP. **The DSPII splice variant is critical for desmosome-mediated HaCaT keratinocyte adhesion.** *J Cell Sci*. 2012; 125:2853-2861.
 7. Carle AC, Dewitt EM, Seid M. **Measures of health status and quality of life in juvenile rheumatoid arthritis: Pediatric Quality of Life Inventory (PedsQL) Rheumatology Module 3.0, Juvenile Arthritis Quality of Life Questionnaire (JAQQ), Paediatric Rheumatology Quality of Life Scale (PRQL), and Childhood Arthritis Health Profile (CAHP).** *Arthritis Care Res (Hoboken)*. 2011; 63 Suppl 11:S438-45.
 8. Chima RS, Schoettker PJ, Varadarajan KR, Kloppenborg E, Hutson TK, Brilli RJ, Repaske DR, Seid M. **Reduction in hypoglycemic events in critically ill patients on continuous insulin following implementation of a treatment guideline.** *Qual Manag Health Care*. 2012; 21:20-8.
 9. Clancy JP, Rowe SM, Accurso FJ, Aitken ML, Amin RS, Ashlock MA, Ballmann M, Boyle MP, Bronsveld I, Campbell PW, De Boeck K, Donaldson SH, Dorkin HL, Dunitz JM, Durie PR, Jain M, Leonard A, McCoy KS, Moss RB, Pilewski JM, Rosenbluth DB, Rubenstein RC, Schechter MS, Botfield M, Ordonez CL, Spencer-Green GT, Vernillet L, Wisseh S, Yen K, Konstan MW. **Results of a phase IIa study of VX-809, an investigational CFTR corrector compound, in subjects with cystic fibrosis homozygous for the F508del-CFTR mutation.** *Thorax*. 2012; 67:12-8.
 10. Cotton S, Grosseohme D, McGrady ME. **Religious coping and the use of prayer in children with sickle cell disease.** *Pediatr Blood Cancer*. 2012; 58:244-9.
 11. Ding L, Wiener H, Abebe T, Altaye M, Go RC, Kercsmar C, Grabowski G, Martin LJ, Khurana Hershey GK, Chakorborty R, Baye TM. **Comparison of measures of marker informativeness for ancestry and admixture mapping.** *BMC Genomics*. 2011; 12:622.
 12. G F, DH G. **Health Care Chaplaincy as a Research-Informed Professor.** *Professional Spiritual and Pastoral Care - A Practical Clergy & Chaplain's Handbook*. Woodstock, VT: Skylights Paths Publishing; 2011:387-406.
 13. Gottschlich MM, Mayes T, Khoury J, McCall J, Simakajornboon N, Kagan RJ. **The effect of ketamine administration on nocturnal sleep architecture.** *J Burn Care Res*. 2011; 32:535-40.
 14. Grosseohme DH. **Research as a chaplaincy intervention.** *J Health Care Chaplain*. 2011; 17:97-9.
 15. Grosseohme DH, Opipari-Arrigan L, VanDyke R, Thurmond S, Seid M. **Relationship of adherence determinants and parental spirituality in cystic fibrosis.** *Pediatr Pulmonol*. 2012; 47:558-66.
 16. Harris WT, Muhlebach MS, Oster RA, Knowles MR, Clancy JP, Noah TL. **Plasma TGF-beta(1) in pediatric cystic fibrosis: potential biomarker of lung disease and response to therapy.** *Pediatr Pulmonol*. 2011; 46:688-95.
 17. Huang IC, Leite WL, Shearer P, Seid M, Revicki DA, Shenkman EA. **Differential item functioning in quality of life measure between children with and without special health-care needs.** *Value Health*. 2011; 14:872-83.
 18. Hug MJ, Derichs N, Bronsveld I, Clancy JP. **Measurement of ion transport function in rectal biopsies.**

Methods Mol Biol. 2011; 741:87-107.

19. Jain SV, Simakajornboon S, Shapiro SM, Morton LD, Leszczyszyn DJ, Simakajornboon N. **Obstructive sleep apnea in children with epilepsy: prospective pilot trial.** *Acta Neurol Scand.* 2012; 125:e3-6.
20. Kercksmar C. **Wheezing in Older Children: Asthma.** *Kendig and Chernick's Disorders of the Respiratory Tract in Children.* Philadelphia, PA: Elsevier/Saunders; 2012:699-735.
21. Kong MY, Li Y, Oster R, Gaggari A, Clancy JP. **Early elevation of matrix metalloproteinase-8 and -9 in pediatric ARDS is associated with an increased risk of prolonged mechanical ventilation.** *PLoS One.* 2011; 6:e22596.
22. Kramer EL, Hardie WD, Mushaben EM, Acciani TH, Pastura PA, Korfhagen TR, Hershey GK, Whitsett JA, Le Cras TD. **Rapamycin decreases airway remodeling and hyperreactivity in a transgenic model of noninflammatory lung disease.** *J Appl Physiol.* 2011; 111:1760-7.
23. Madala SK, Maxfield MD, Davidson CR, Schmidt SM, Garry D, Ikegami M, Hardie WD, Glasser SW. **Rapamycin Regulates Bleomycin-Induced Lung Damage in SP-C-Deficient Mice.** *Pulm Med.* 2011; 2011:653524.
24. Madala SK, Schmidt S, Davidson C, Ikegami M, Wert S, Hardie WD. **MEK-ERK pathway modulation ameliorates pulmonary fibrosis associated with epidermal growth factor receptor activation.** *Am J Respir Cell Mol Biol.* 2012; 46:380-8.
25. Mayes T, Gottschlich MM, Khoury J, McCall J, Simakajornboon N, Kagan RJ. **Sleep apnea: a risk factor for obese burned children during the rehabilitative phase of injury.** *J Burn Care Res.* 2011; 32:541-6.
26. McNally KA, Shear PK, Tlustos S, Amin RS, Beebe DW. **Iowa gambling task performance in overweight children and adolescents at risk for obstructive sleep apnea.** *J Int Neuropsychol Soc.* 2012; 18:481-9.
27. Mentink-Kane MM, Cheever AW, Wilson MS, Madala SK, Beers LM, Ramalingam TR, Wynn TA. **Accelerated and progressive and lethal liver fibrosis in mice that lack interleukin (IL)-10, IL-12p40, and IL-13 α 2.** *Gastroenterology.* 2011; 141:2200-9.
28. Pan G, Zheng R, Yang P, Li Y, Clancy JP, Liu J, Feng X, Garber DA, Spearman P, McDonald JM. **Nucleosides accelerate inflammatory osteolysis, acting as distinct innate immune activators.** *J Bone Miner Res.* 2011; 26:1913-25.
29. Piccione JC, McPhail GL, Fenchel MC, Brody AS, Boesch RP. **Bronchiectasis in chronic pulmonary aspiration: risk factors and clinical implications.** *Pediatr Pulmonol.* 2012; 47:447-52.
30. Pyle LC, Ehrhardt A, Mitchell LH, Fan L, Ren A, Naren AP, Li Y, Clancy JP, Bolger GB, Sorscher EJ, Rowe SM. **Regulatory domain phosphorylation to distinguish the mechanistic basis underlying acute CFTR modulators.** *Am J Physiol Lung Cell Mol Physiol.* 2011; 301:L587-97.
31. Raake J, Johnson B, Seger B, Manning PB, Eghtesady P, Boesch P, Rutter M, Woodard A, Chima RS. **Extracorporeal membrane oxygenation, extubation, and lung-recruitment maneuvers as rescue therapy in a patient with tracheal dehiscence following slide tracheoplasty.** *Respir Care.* 2011; 56:1198-202.
32. Redline S, Amin R, Beebe D, Chervin RD, Garetz SL, Giordani B, Marcus CL, Moore RH, Rosen CL, Arens R, Gozal D, Katz ES, Mitchell RB, Muzumdar H, Taylor HG, Thomas N, Ellenberg S. **The Childhood Adenotonsillectomy Trial (CHAT): rationale, design, and challenges of a randomized controlled trial evaluating a standard surgical procedure in a pediatric population.** *Sleep.* 2011; 34:1509-17.
33. Ross KR, Storfer-Isser A, Hart MA, Kibler AM, Rueschman M, Rosen CL, Kercksmar CM, Redline S. **Sleep-Disordered Breathing is Associated with Asthma Severity in Children.** *J Pediatr.* 2012; 160:736-42.
34. Rowe SM, Clancy JP, Sorscher EJ. **A breath of fresh air.** *Sci Am.* 2011; 305:68-73.
35. Rowe SM, Clancy JP, Wilschanski M. **Nasal potential difference measurements to assess CFTR ion channel activity.** *Methods Mol Biol.* 2011; 741:69-86.
36. Saldana SN, Hooper DK, Froehlich TE, Campbell KM, Prows CA, Sadhasivam S, Nick TG, Seid M, Vinks AA,

- Glauser TA. **Characteristics of successful recruitment in prospective pediatric pharmacogenetic studies.** *Clin Ther.* 2011; 33:2072-81.
37. Seid M. **Predictors of health-related quality of life in children and adolescents with juvenile idiopathic arthritis.** *Arthritis Care Res (Hoboken).* 2012; 64:652.
 38. Seid M, D'Amico EJ, Varni JW, Munafo JK, Britto MT, Kercsmar CM, Drotar D, King EC, Darbie L. **The in vivo adherence intervention for at risk adolescents with asthma: report of a randomized pilot trial.** *J Pediatr Psychol.* 2012; 37:390-403.
 39. Sert Kuniyoshi FH, Zellmer MR, Calvin AD, Lopez-Jimenez F, Albuquerque FN, van der Walt C, Trombetta IC, Caples SM, Shamsuzzaman AS, Bukartyk J, Konecny T, Gami AS, Kara T, Somers VK. **Diagnostic accuracy of the Berlin Questionnaire in detecting sleep-disordered breathing in patients with a recent myocardial infarction.** *Chest.* 2011; 140:1192-7.
 40. Sung V, Beebe DW, Vandyke R, Fenchel MC, Crimmins NA, Kirk S, Hiscock H, Amin R, Wake M. **Does sleep duration predict metabolic risk in obese adolescents attending tertiary services? A cross-sectional study.** *Sleep.* 2011; 34:891-8.
 41. Trapnell BC. **Inhaled dry powder mannitol: a solution for cystic fibrosis.** *Am J Respir Crit Care Med.* 2012; 185:596-8.
 42. Trapnell BC, McColley SA, Kissner DG, Rolfe MW, Rosen JM, McKevitt M, Moorehead L, Montgomery AB, Geller DE. **Fosfomycin/tobramycin for inhalation in patients with cystic fibrosis with pseudomonas airway infection.** *Am J Respir Crit Care Med.* 2012; 185:171-8.
 43. Trapnell BC, Strausbaugh SD, Woo MS, Tong SY, Silber SA, Mulberg AE, Leitz G. **Efficacy and safety of PANCREAZE(R) for treatment of exocrine pancreatic insufficiency due to cystic fibrosis.** *J Cyst Fibros.* 2011; 10:350-6.
 44. Vermaire D, Caruso MC, Lesko A, Kloppenborg E, Olivea J, Pruett R, Paul M, Schoettker PJ, Seid M, Varadarajan KR, Conway PH. **Quality improvement project to reduce perioperative opioid oversedation events in a paediatric hospital.** *BMJ Qual Saf.* 2011; 20:895-902.
 45. Waitzfelder B, Pihoker C, Klingensmith G, Case D, Anderson A, Bell RA, Lawrence JM, Mayer-Davis EJ, Imperatore G, Standiford D, Rodriguez BL, Dabelea D, Seid M. **Adherence to guidelines for youths with diabetes mellitus.** *Pediatrics.* 2011; 128:531-8.
 46. Wedes SH, Wu W, Comhair SA, McDowell KM, DiDonato JA, Erzurum SC, Hazen SL. **Urinary bromotyrosine measures asthma control and predicts asthma exacerbations in children.** *J Pediatr.* 2011; 159:248-55 e1.
 47. Wood R, Boesch R. **Bronchoscopy and Bronchoalveolar Lavage in Pediatric Patients.** *Kendig and Chernick's Disorders of the Respiratory Tract in Children.* Philadelphia, PA: Elsevier/Saunders; 2012:131-144.
 48. Yi-Frazier JP, Hood K, Case D, Waitzfelder B, Anderson A, Bloch CA, Naughton M, Seid M, Imperatore G, Loots B, Bell R, Lawrence JM. **Caregiver reports of provider recommended frequency of blood glucose monitoring and actual testing frequency for youth with type 1 diabetes.** *Diabetes Res Clin Pract.* 2012; 95:68-75.

Faculty, Staff, and Trainees

Faculty Members

Raouf Amin, MD, Professor

Leadership Director, Division of Pulmonary Medicine;; Endowed Chair, Hubert and Dorothy Campbell Professorship in Pediatric Pulmonology

Research Interests Cardiovascular morbidity of sleep apnea in children

Thomas Boat, MD, Professor

Leadership Executive Associate Dean, University of Cincinnati College of Medicine

R. Paul Boesch, DO, Assistant Professor

Leadership Director, Transitional Care Center

Research Interests Chronic pulmonary aspiration; mucus hypersecretion

Ronald Bokulic, DO, Associate Professor

Lisa Burns, MD, Assistant Professor

Research Interests CF Transition of Care; Pulmonary Vascular Disease

Barbara Chini, MD, Associate Professor

Leadership Director, Pulmonary Fellowship Program

Research Interests Sleep Disordered Breathing, Outcomes Research, Self-Management of Chronic diseases

John P. Clancy, MD, Professor

Leadership Thomas Boat Endowed Chair; Director, Clinical and Translational Research

Research Interests Airway and epithelial biology, examining novel targets to treat cystic fibrosis;

Joseph Crisalli, MD, Assistant Professor

Research Interests Pediatric Sleep, Exercise Physiology

Mathew Ednick, DO, Assistant Professor

Research Interests Pediatric Sleep, Sickle Cell Disease

William Hardie, MD, Professor

Leadership Director, Pulmonary Function Laboratory

Research Interests Molecular mechanism of pulmonary fibrosis, pediatric pulmonary function tests, pediatric pneumonia complications

Patricia Joseph, MD, Associate Professor

Research Interests Cystic fibrosis infections and quality improvement

Carolyn Kerckmar, MD, Professor

Leadership Director, Asthma Center; C-Director Pulmonary Medicine

Research Interests Asthma, inner city asthma, clinical outcomes and clinical trials, airway inflammation

Satish Madala, PhD, Instructor

Research Interests Immunoregulatory Mechanisms in pulmonary inflammation and fibrosis; Stromal cell contribution in pulmonary fibrosis

Karen McDowell, MD, Associate Professor

Research Interests Asthma self management, utilization of technology for chronic disease management, bronchoscopy and wheezing/asthma, health care effectiveness, outcomes.

Gary McPhail, MD, Assistant Professor

Leadership Associate Director, Fellowship Training Program

Research Interests Cystic fibrosis, quality improvement, clinical outcomes, pulmonary vascular disease

Hemant Sawnani, MD, Assistant Professor

Research Interests Pulmonary Management of children with Neuromuscular diseases; sleep disordered breathing in Duchenne Muscular Dystrophy; Infant Apnea; Obstructive Sleep Apnea; Outcomes in Sleep Medicine

Michael Seid, PhD, Professor

Leadership Director, Health Outcomes and Quality of Care Research

Research Interests Health outcomes for children with chronic health conditions, interventions to overcome barriers to care and adherence, clinical behavior and effects on self-management, quality improvement research

Abu Shamsuzzaman, MD, Assistant Professor

Research Interests Sleep and Cardiovascular Diseases

Narong Simakajornboon, MD, Associate Professor

Leadership Director, Sleep Disorders Center; Program Director, Sleep Medicine Fellowship

Research Interests Sleep-disordered breathing in children, sleep apnea, restless legs syndrome, periodic limb movement disorders

Robert Wood, PhD, MD, Professor

Leadership Director, Pulmonary Bronchology Program

Research Interests Airway abnormalities; pulmonary alveolar proteinosis

Lisa Young, MD, Assistant Professor

Leadership Director, Pediatric Rare Lung Diseases Clinical Program

Research Interests Interstitial lung diseases, rare lung diseases, lymphangioleiomyomatosis

Joint Appointment Faculty Members

Kelly Byars, PsyD, Associate Professor (Psychology)

Research Interests Current research focuses on improving the assessment and treatment of pediatric insomnia and pediatric obstructive sleep apnea

Daniel Grosseohme, DMin, BCC, Assistant Professor (Pastoral Care)

Research Interests Religion/spirituality, adherence, coping, cystic fibrosis

Bruce Trapnell, MD, Professor (Neonatology and Pulmonary Biology)

Rhonda Szczesniak, PhD, Assistant Professor (Biostatistics & Epidemiology)

Research Interests Current areas of interest are Mixture Models and Functional Data Analysis with focus on Bayesian statistics, primarily using Markov Chain Monte Carlo. Content-specific areas include integration of fMRI and MEG modalities; developing statistical models to assess impact of OSA; CF outcomes research

Clinical Staff Members

- **Moutazz Abdulhadi, RPSGT**,
Respiratory Therapist
- **Denetra Bamonte, RRT, RPSGT**,
Respiratory Therapist
- **Sallie Bauer, RRT, RPSGT**,
Respiratory Therapist
- **Marsha Blount, CNP**,
Certified Nurse Practitioner
- **Walter Blower, RRT**,
Respiratory Therapist
- **Carla Broadus, RN**,
Nurse Coordinator
- **Ginger Browning, RRT, BS**,
Airway Clearance Specialist

- **Johnny Bryant, RRT, RPSGT,**
Respiratory Therapist
- **Monica Chapman, RN,**
Nurse Coordinator
- **Jessica Co, CNP,**
Certified Nurse Practitioner
- **Amy Cole, RRT, RPSGT,**
Lead Technologist
- **Adrienne Conrad, ,**
PSG Tech Asst
- **Shannon Deidesheimer, RN,**
Nurse Coordinator
- **Geri Dinkins, RN,**
Nurse Coordinator
- **Melodie Dixon, RRT, RPSGT,**
Respiratory Therapist
- **Amanda Dressman, CNP,**
Certified Nurse Practitioner
- **Julie Feldstein, RRT, CPFT,**
Respiratory Therapist
- **Karla Foster, MS,**
Exercise Physiologist
- **Giblin Megan, RRT,**
Respiratory Therapist
- **Robin Hamilton, RN,**
Clinical Manager
- **Brenda Harkelroad, RN,**
Nurse Coordinator
- **Joann Harmeyer, RRT, RPSGT,**
Respiratory Therapist
- **Stephanie Harris, RRT,**
Respiratory Therapist
- **Amanda Hatfield, RRT,**
Respiratory Therapist
- **Moir Heckler, RN,**
Nurse Coordinator
- **Marion Johnson, RRT,**
Respiratory Therapist
- **Sharon Kadon, RN,**
Nurse Coordinator
- **Amanda Kelly, RRT,**
Respiratory Therapist
- **Michelle Kleinhenz, RRT,**
Respiratory Therapist
- **Beth Koch, RRT, RPFT,**
Clinical Supervisor Pulmonary Function Lab
- **Margaret Landers, RRT, RPSGT,**
Respiratory Therapist
- **Denise Leonard, RN,**
Nurse Coordinator
- **Jean Luchini, RN,**

Nurse Coordinator

- **Julie Malkin, CNP,**
Certified Nurse Practitioner
- **Janice MacBrair, CNP,**
Certified Nurse Practitioner
- **Susan McCarthy, RRT, RPSGT,**
Respiratory Therapist
- **Keith McConnell, ,**
Senior Biomedical Engineer
- **Kathy McGee, CNP,**
Certified Nurse Practitioner
- **Rachel McGill, RD, LD,**
Dietician
- **Connie Meeks, RN,**
Nurse Coordinator
- **Steven Moore, RN,**
Clinical Coordinator
- **Asia Moore-Munlin, RRT, CPFT,**
Respiratory Therapist
- **Karen Murphy, MSW, LISW-S,**
Social Worker
- **Teresa O'Hara, RN,**
Nurse Coordinator
- **Laura Ogilby, RRT,**
Respiratory Therapist
- **John Pack, RRT,**
Respiratory Therapist
- **Melissa Rice, CNP,**
Certified Nurse Practitioner
- **Valerie Sackenheim, RN,**
Nurse Coordinator
- **Kathy Santoro, RD, LD,**
Dietician
- **Dianne Stratton, RRT,**
Respiratory Therapist
- **Jackie Taylor, RD, LD,**
Dietician
- **Sarah Thomas, CNP,**
Certified Nurse Practitioner
- **Debbie Webster, BA, RRT, RPSGT,**
Clinical Supervisor
- **Tonya Weddle, RRT,**
Respiratory Therapist
- **Jeanne Weiland, CNP,**
Certified Nurse Practitioner
- **Allison Whisenhunt, MSW, LISW-S,**
Social Worker
- **Kathy Witschger, RRT,**
Respiratory Therapist
- **Brenda Young, RRT,**

Trainees

- **Dan Benscoter, DO**, PL-6, Geisinger Medical Center
- **Justin Brockbank, MD**, PL-4, Virginia Comm. Univ. Medical Center
- **Hina Chaudry, MD**, PI-7, University of South Carolina, School of Medicine
- **Neepa Gurbani, DO**, PL-6, University of Nevada School of Medicine
- **Kavitha Kotha, MD**, PL-6, Children's Hospital Medical Center Akron
- **Chee Tan, MD**, PL-6, Winthrop University Hospital
- **Cherie Torres-Silva, MD**, PL-9, University of Texas Health Science Center-Houston
- **Colby Wyatt, MD, PhD**, PL-4, Cincinnati Children's Hospital Medical Center
- **Daniela Zgherea, MD**, PL-5, Maimonides Infants and Children's Hospital

Division Collaboration

Pediatric Otolaryngology/Head and Neck Surgery; Pediatric Surgery; Gastroenterology, Hepatology and Nutrition; Interdisciplinary Feeding Clinic » Richard Azizkhan, M.D., Robin Cotton, M.D., Alessandro de Alarcon, M.D., Thomas Inge, M.D., Ajay Kaul, M.D., Charles Myer, M.D., Philip Putnam, M.D., Michael Rutter, M.D., Sally Shott, M.D., and Paul Willging, M.D.

Aerodigestive and Sleep Center-Treatment of chronically ill children with complex airway, pulmonary, upper digestive tract, sleep and feeding disorders

Anesthesia; Cardiology; Endocrinology; Developmental and Behavioral Pediatrics; Gastroenterology, Hepatology and Nutrition; Genetic Counseling; International Health; Neurology; Nutrition Therapy; Orthopaedics; Palliative Care; Pediatric Surgery; Physical Therapy; Rehabilitative Medicine; Social Work » Rebecca Brown, M.D., Jim Collins, M.D., Linda Cripe, M.D., Thomas Inge, M.D., Viral Jain, M.D., Ajay Kaul, M.D., Mary McMahon, M.D., Mark Meyer, M.D., Susan Rose, M.D., Meilan Rutter, M.D., Irena Rybalsky, M.D., David Schonfield, M.D., Robert Spicer, M.D., Jeffrey Towbin, M.D., Martha Walker, M.D., Norbert Weidner, M.D., and Brenda Wong, M.D.

Comprehensive Neuromuscular Center-Treatment of children with neuromuscular disorders

Allergy and Immunology; General Pediatrics » Amal Assa'ad, M.D., Gurjit Hershey, M.D., Maria Britto, M.D., Thomas DeWitt, M.D., Keith Mandel, M.D., Mona Mansour, M.D., Marc Rothernberg, M.D., and Jeffrey Simmons, M.D.

Asthma Center - Treatment of children and adolescents with asthma; development of an asthma repository

Molecular Immunology; Pulmonary Biology » Jeff Whitsett, M.D. and Bruce Trapnell, M.D.

Cystic Fibrosis Research

Pulmonary Biology » Thomas Korfhagen, M.D. and Jeffrey Whitsett, M.D.

Pulmonary Fibrosis Research

Pulmonary Biology; Radiology; Orthopaedics; University of Cincinnati; ; » Alan Brody, M.D., Alvin Crawford, M.D., Gail Deutsch, M.D., Thomas Inge, M.D., and Bruce Trapnell, M.D.

Rare Lung Disease Center - Diagnosis and management of children with rare lung diseases, including interstitial lung disease, surfactant mutations, lung development disorders, lymphatic disorders and chronic lung diseases associated with immunodeficiency/immune dysfunction, rheumatologic disorders and other systemic disorders.

Cardiology; Endocrinology; Neurology; Otolaryngology; Pediatric Surgery; Psychology; Radiology » Dean

Beebe, Ph.D., Alan Brody, M.D., Robin Cotton, M.D., Larry Dolan, M.D., Chuck Dumoulin, M.D., Robert Fleck, M.D., Thomas Inge, M.D., Thomas Kimball, M.D., Timothy Knilans, M.D., Sally Shott, M.D., Wanaka Wasapura, M.D., and J. Paul Willging, M.D.

Sleep Research- Cardiovascular morbidity secondary to obstructive sleep apnea in children and the neurocognitive outcome of the disease

Audiology; Human Genetics; Neurosurgery; Otolaryngology; Pediatric Dentistry; Orthodontics; Plastic Surgery; Psychology; Speech Pathology » David Billmire, M.D., Richard Campbell, M.D., Kerry Crone, M.D., Christopher Gordan, M.D., William Greenhill, DMD, Ann Kummer, Ph.D., Francesco Mangano, DO, Jane Middendorf, MA, Cynthia Prows, MSN, Gayle Riemer, M.D., Howard Saal, M.D., Iris Sageser, RDH, and J Paul Willging, M.D.

Craniofacial Team

Orthopaedics » Alvin Crawford, M.D., Viral Jain, M.D., and Eric Wall, M.D

Spine Center

Grants, Contracts, and Industry Agreements

Grant and Contract Awards	Annual Direct
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AMIN, R		
Pediatric Sleep Research Program		
National Institutes of Health		
K24 HL 078989	03/01/11-02/29/16	\$139,466
Randomized Control Study of Adenotonsillectomy for Childhood Sleep Apnea		
National Institutes of Health(Brigham & Women's Hospital)		
U01 HL 083075	08/01/11-07/31/12	\$48,544

CLANCY, J		
Bronchoalveolar Lavage Fluid (BALF) Specimen Bank and Lower Airway Microblome in Children and Adults With and Without CF		
Cystic Fibrosis Foundation Therapeutics, Inc(University of Colorado)		
	07/01/11-06/30/12	\$5,500
CFFT Biomarker Consortium		
Cystic Fibrosis Foundation Therapeutics, Inc		
	01/01/11-12/31/12	\$25,711
Translating CFTR Modulation from Animal Models to Human Samples		
Cystic Fibrosis Foundation Therapeutics, Inc		
	01/01/12-12/31/12	\$58,727
Translational Therapeutics Development Center		
Cystic Fibrosis Foundation Therapeutics, Inc		
	01/01/09-12/31/12	\$130,000

GROSSOEHME, D		
Parental Adherence to CF Homecare: Research Chaplaincy Career Commitment		
National Institutes of Health		
K23 HD 062642	08/13/10-05/31/15	\$108,740

HARDIE, W		
Biomarkers of Immunologic Function and Preterm Respiratory Outcomes		
National Institutes of Health		
U01 HL 101800	05/01/10-04/31/15	\$49,983
Inspiratory Muscle Strength Training in Patients with Upper Airway Obstruction		

National Institutes of Health(Miami University) R03 DC 009057	07/01/09-06/30/12	\$41,960
Molecular Interventions for Pulmonary Fibrosis		
National Institutes of Health P50 HL 107159	05/01/11-04/30/13	\$307,738
Ruth L. Kirschstein National Research Service Award Short-Term Institutional Research Program		
National Institutes of Health T35 HL 113229	05/01/12-04/30/16	\$50,255
HEUBI, J		
Baby Observational and Nutritional Supplement (BONUS) Study		
Cystic Fibrosis Foundation Therapeutics, Inc(Seattle Children's)	12/01/10-05/31/14	\$44,403
KERCSMAR, J		
Community Based Asthma Intervention Program		
Schroth Family Trust	1/1/12-12/31/12	\$150000
KOTHA, K		
Cystic Fibrosis Clinical Fellowship Grant		
Cystic Fibrosis Foundation	07/01/10-06/30/12	\$49,750
MADALA, S		
Role of TGFa-induced Fibrocytes in Pulmonary Fibrosis and Pulmonary Hypertension		
American Heart Association 12SDG9130040	01/01/12-12/31/15	\$70,000
MCPHAIL, G		
Cystic Fibrosis Center Program Accreditation And Funding		
Cystic Fibrosis Foundation	07/01/94-06/30/12	\$106,530
SEID, M		
Multidisciplinary Clinical Research Center - Project 4		
National Institutes of Health P60 AR 047784	08/18/08-07/31/13	\$147,482
WYATT, C		
Second Year Clinical Fellowship Training Grant		
Cystic Fibrosis Foundation	07/01/11-06/30/13	\$48,000
Current Year Direct		\$1,582,789
Industry Contracts		
AMIN		
Eurand S.p.A		\$6,199
GlaxoSmithKline		\$16,986
Vertex Pharmaceuticals Incorporated		\$6,002
CLANCY, J		
Gilead Sciences, Inc.		\$6,188
TRAPNELL		
Gilead Sciences, Inc.		\$12,766

Mpex Pharmaceuticals, Inc.	\$84,075
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WOOLDRIDGE

Vertex Pharmaceuticals Incorporated	\$1,729
Current Year Direct Receipts	\$133,945
Total	\$1,716,734