

Peter M. Mourani, MD President, Arkansas Children's Research Institute Sr. Vice President & Chief Research Officer, Arkansas Children's Professor of Pediatrics, Section of Critical Care University of Arkansas for Medical Sciences

Dr. Mourani is a physician scientist fellowship trained in both pediatric critical care and pulmonary medicine. He is a Professor of Pediatrics in the Section of Critical Care at the University of Arkansas for Medical Sciences in the College of Medicine. He also serves as President of Arkansas Children's Research Institute, and Senior Vice President & Chief Research Officer at Arkansas Children's, holding the Whipple Family Distinguished Research Scientist Endowed Chair. Dr. Mourani investigates the mechanisms and biomarkers of acute lung disease in critically ill neonates, infants, and children. One of Dr. Mourani's research foci is the study of preterm infants at risk for the chronic lung disease of infancy, known as bronchopulmonary dysplasia (BPD) and pulmonary hypertension (PH). His work has contributed to the epidemiology of the interrelatedness between BPD and PH, and the utility of echocardiogram to detect PH in these infants. His team has developed predictive models for BPD and PH using biomarkers and clinical predictors and has detailed long-term outcomes for these infants, informing care guidelines for this patient population. His other research focus is the use of multi-'omics methodologies to better diagnose and understand the mechanisms of severe lower respiratory infections (LRTI), including ventilator associated pneumonia, in children. His group has used these methodologies to further define the epidemiology of severe LRTI requiring mechanical ventilation in the U.S. and is developing a combined host and microbe metagenomic based classifier to diagnose LRTI and differentiate between viral, bacterial, or combined infections. He serves as a steering committee member for the prestigious National Institute of Child Health and Human Development-supported Collaborative Pediatric Critical Care Research Network (CPCCRN), which performs meaningful clinical research in the field of pediatric critical illness and injury. He is a key member of the team that designed the Personalized Immunomodulation in Pediatric Sepsis-induced MODS (PRECISE) for the current cycle of CPCCRN, which is among the first personalized medicine trials in pediatric critical care.