Nemours Children's Health Researchers to Share Studies on Key Topics in Child Health at Pediatric Academic Societies Meeting



HONOLULU (April 24, 2025) — Researchers from Nemours Children's Health will present findings from a range of studies at the

2025 Pediatric Academic Societies (PAS) Meeting, April 24-28 in Honolulu. Key presentations include an update on pioneering studies using the Zika virus to treat cancer; the diagnosis and management of fever in traveling children; a report on screening for eating disorders during emergency department visits; studies on diagnosing iron deficiency in newborns, and an update on efforts to reduce the duration of antibiotic treatment for ear infections and pneumonia.

"The presentations at PAS this year highlight the multifaceted ways that Nemours Children's researchers work to advance science in support of improving Whole Child Health," said Matthew M. Davis, MD, MAPP, Executive Vice-President, Enterprise Physician-in-Chief and Chief Scientific Officer, Nemours Children's Health. "The PAS meeting provides a world-class forum for the research we do every day across an array of pediatric specialties, to help provide clinicians with the latest clinical knowledge and inspiration."

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Nemours presentations include:

The Zika Viral Therapy of Metastatic High-Risk Neuroblastoma*ln Vivo* Models Yields Effective Tumor Elimination when Applied to Permissive Host Cells

Nemours researchers Tamarah Westmoreland, MD, PhD, and Joseph Mazar, PhD, both of Nemours Children's Hospital, Florida, are leading groundbreaking research using Zika virus to treat high-risk neuroblastoma. Previous studies demonstrated that injecting the virus into neuroblastoma tumors in mice eliminates the tumors. At PAS, they will present results of a study that indicates that the Zika virus was effective in eliminating metastatic tumors as well as original tumors in mice.

Screening for Eating Disorders in the Pediatric Emergency Department

Screening for eating disorders in the pediatric emergency department presents an opportunity for intervention, particularly for patients who do not have their own primary care provider. Amy Thompson, MD, Attending Pediatrician in the Emergency Room (ER) at Nemours Children's Hospital, Delaware, will present results of a study that screened adolescent patients for signs of eating disorders during visits to the ER. Fewer than 30% of the patients had been screened for eating disorders in the past year, and approximately 20% of all patients in the study had positive screens for eating disorders. Overall, 95% of patients supported the idea of screening for eating disorders during emergency room visits.

Fever in the Traveling Child: Diagnostic Challenges and Management Strategies

The Nemours Children's Hospital, Florida, location draws a diverse range of pediatric patients, as Orlando is a popular vacation destination for travelers within the United States and abroad. Fever in the traveling pediatric patient may be due to common viruses or more complex illnesses that stem from insect bites or foodborne pathogens. Three Pediatric Emergency Medicine physicians—Andrea Rivera-Sepulveda, MD, MSc; Corinne Bria, MD, MEd; and Nicolas Erbrich, MD—along with Kenneth Alexander, MD, PhD, Professor of Infectious Diseases, will use real-life clinical scenarios to illustrate the challenges in diagnosing children who come to the emergency department with fevers. The physicians will provide treatment and management strategies to ensure these children receive high-quality, evidence-based care.

Assessing the Necessity for Iron Deficiency Screening at Birth: Are we Missing Critical Intervention Opportunities?

Iron deficiency in newborn infants can lead to developmental or behavioral problems later in childhood. There are currently no published recommendations to screen newborn babies for iron deficiency. Geetika Kennady, MD, FAAP, Attending Neonatologist at Nemours Children's Hospital, Delaware, will share results of a study that tested neonatal infants for iron deficiency and found that more than 10% of the babies were deficient, with higher incidence in premature babies and those whose mothers smoked, had diabetes, or were anemic themselves. Kennady suggests that screening may be beneficial and

may help mitigate later developmental problems.

Decreasing Ambulatory Antibiotic Treatment Duration for Acute Otitis Media and Community Acquired Pneumonia within a Pediatric Integrated Healthcare System

While children diagnosed with ear infections or pneumonia were historically prescribed a 10-day course of antibiotics, evidence has shown that shorter durations of treatment are just as effective and may help children avoid the side effects of antibiotics, while also minimizing long-term antibiotic resistance. Elysha Pifko, MD, Emergency Medicine Physician at Nemours Children's Hospital, Delaware, will present results of a quality improvement initiative that aimed to encourage shorter-duration antibiotic treatment. The initiative helped reduce antibiotic treatment from 7.6 days to 6 days for pneumonia, and 8.5 days to 6.8 days for ear infections, with no significant change in effectiveness.

Pediatric Eye and Skin Injuries from Single-use Laundry Detergent Packets

Following a rising trend of injuries from single-use laundry detergent packets, between 2014 and 2016, ASTM International enacted voluntary safety standards for labeling and packaging laundry products. Joshua Rice, MD, a Fellow in Emergency Medicine with Nemours Children's Hospital, Delaware, will report that since the recommendations took effect, hospitalizations and severity of injuries decreased, but skin and eye injuries in young children remain a common occurrence.

Validation of Digital Stethoscope for Recording and Identification of Pediatric Breath Sounds to Aid in Development of Machine Learning Algorithm

Machine learning technology has proven effective in identifying findings heard by listening, including heart murmurs, but no similar technology has been validated for pulmonary findings. Jennifer Nestor, MD, a Fellow in Critical Care at Nemours Children's Hospital, Delaware, will present results of a study in which she used digital stethoscope recording technology to record lung sounds, such as wheezing and crackles, with the aims of validating the technology for use in recording and classifying pediatric breath sounds and development of a breath sound data base for later development of a machine learning algorithm.

In addition to these presentations, several Nemours leaders will be at the conference and are available for media interviews, including Davis; David Brousseau, MD, MS, Pediatrician-in-Chief, Chair of Pediatrics and Director of Research at Nemours Children's Health, Delaware Valley; Jennifer Nelson, MD, MS, Director of Research at Nemours Children's Health, Central Florida; and Carissa Baker-Smith, MD, MPH, Director of Pediatric Preventive Cardiology at Nemours Children's Health, Delaware Valley, and Co-director of the Nemours Cardiac Center Cardiovascular Research and Innovation Program.

About Nemours Children's Health

Nemours Children's Health is one of the nation's largest multistate pediatric health systems, which includes two free-standing children's hospitals and a network of more than 70 primary and specialty care practices. Nemours Children's seeks to transform the health of children by adopting a holistic health model that utilizes innovative, safe, and high-quality care, while also addressing children's needs well beyond medicine. In producing the highly acclaimed, award-winning pediatric medicine podcast Well Beyond Medicine, Nemours underscores that commitment by featuring the people, programs and partnerships addressing whole child health. Nemours Children's also powers the world's most-visited website for information on the health of children and teens, Nemours KidsHealth.org.

The Nemours Foundation, established through the legacy and philanthropy of Alfred I. duPont, provides pediatric clinical care, research, education, advocacy, and prevention programs to the children, families and communities it serves. For more information, visit Nemours.org.

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