



Department of Pediatrics
UNIVERSITY OF WISCONSIN
SCHOOL OF MEDICINE AND PUBLIC HEALTH

Pediatrics Research Week

Program Guide

May 13–17, 2024

Table of Contents



Schedule Overview 3



Fellow Capstone Research Presentations 4



Ellen R. Wald Faculty Research Forum 5



Platform Presentations
Platform Presentation Schedule..... 6
Platform Presentation Abstracts 7-9



Poster Presentations 10-13

Schedule Overview

Events highlighted in gray will be held in person in HSLC 1335 or the HSLC Atrium.

DAY	MORNING	AFTERNOON
M O N D A Y	<p>8–9 a.m. via Zoom Combating Racial Inequities in Maternal and Infant Mortality</p> <p>Speaker: Jasmine Zapata, MD, MPH, assistant professor, Division of Neonatology and Newborn Nursery, Department of Pediatrics, UW SMPH</p>	<p>Noon–1 p.m. via Zoom QI in Research – Two Talks</p> <p>Examining the Blurry Line Between Quality Improvement and Research Kristin Shadman, MD, professor, director of QI Scholarship, Division of Hospital Medicine & Complex Care, Department of Pediatrics, UW SMPH</p> <p>Project HIFLO: Decreasing Use of High-flow Nasal Cannula in Mild-moderate Bronchiolitis Allie Hurst, MD, MS, assistant professor, Division of Pediatric Emergency Medicine, Department of Emergency Medicine, UW SMPH</p>
T U E S D A Y	<p>8–9 a.m. via Zoom Collaborating with the Institute for Clinical and Translational Research to Extend Your Research</p> <p>Speakers: Elizabeth Burnside, MD, MPH, MS, FACR, professor, senior associate dean, UW SMPH Allan Brasier, MD, executive director, ICTR, UW SMPH</p>	<p>Noon–1 p.m. via Zoom Youth Panel: Adolescent Perspectives on Research Participation</p> <p>Moderator: Ellen Selkie, MD, MPH, assistant professor, fellowship director, Division of General Pediatrics and Adolescent Medicine, Department of Pediatrics, UW SMPH</p>
W E D N E S D A Y	<p>8–9 a.m. via Zoom A Panel Discussion on Engaging Learners in Scholarly Work</p> <p>Moderator: Michelle Kelly, MD, professor, Division of Hospital Medicine & Complex Care, Department of Pediatrics, UW SMPH</p> <p>Visit go.wisc.edu/0077bm to see the panelists</p>	<p>1:30–5:05 p.m. HSLC 1335 & via Zoom Fellow Capstone Research Presentations and Reception</p> <p>Visit page 4 for presenters and presentation schedule</p>
T H U R S D A Y	<p>7:30–8:30 a.m. HSLC 1335 & via Zoom Pediatrics Grand Rounds: Odell Lectureship</p> <p>Speaker: Bruce Klein, MD, professor, division chief, Division of Infectious Diseases, Department of Pediatrics, UW SMPH</p> <p>8:30–9 a.m. HSLC 1335 & via Zoom Odell Award Recipient Lecture</p> <p>Speaker: Bryn Webb, MD, associate professor, Division of Genetics and Metabolism, Department of Pediatrics, UW SMPH</p>	<p>9:30–10 a.m. HSLC 1335 & via Zoom Research Team Updates</p> <p>Speaker: Becky Bound, associate director, Research, Department of Pediatrics, UW SMPH</p> <p>10–11:40 a.m. HSLC 1335 & via Zoom Ellen R. Wald Faculty Research Forum</p> <p>Visit page 5 for presenters and presentation schedule</p>
F R I D A Y	<p>8–9 a.m. via Zoom Pediatric Surgical Research: Elevating Care Beyond UW</p> <p>Speaker: Walid A. Farhat, MD, FACS, GPLLM, professor, chief, Division of Pediatric Urology, Department of Urology, UW SMPH</p>	<p>1–1:30 p.m. HSLC 1345 & via Zoom Research Week Keynote: Reflections on an Unexpected Career in Global Health Research</p> <p>Speaker: Anthony Garcia-Prats, MD, MSc, PhD, associate professor, Divisions of General Pediatrics and Adolescent Medicine and Global Health, Department of Pediatrics, UW SMPH</p> <p>1:30–3 p.m. HSLC 1345 & via Zoom Platform Presentations</p> <p>Visit page 6 for presenters and presentation schedule</p> <p>3:10–5 p.m. HSLC Atrium Poster Presentations</p> <p>Visit page 10 for presenters and presentation schedule</p>

Fellow Capstone Presentations

Wednesday, May 15 | 1:30–5:05 p.m. | HSLC 1335 & Zoom

Time	Speaker	Presentation Title
1:30–1:35 p.m.	Ellen Selkie, MD, MPH	Welcome
1:35–1:55 p.m.	Haroon Ali, MD, fellow, Divisions of General Pediatrics and Adolescent Medicine and Hospital Medicine and Complex Care, Department of Pediatrics, UW SMPH	Feasibility of Performing Tympanostomy Tube Placement and Auditory Brainstem Response Outside the Operating Room Under Deep Sedation
1:55–2:15 p.m.	Zachary Gray, MD, fellow, Division of Critical Care, Department of Pediatrics, UW SMPH	Workshop to Promote a Growth Mindset in Pediatric Residents
2:15–2:35 p.m.	Zachary Smith, DO, fellow, Division of Critical Care, Department of Pediatrics, UW SMPH	Developing an Institutional Transport Medical Control Curriculum
2:35–2:55 p.m.	Joe Presson, DO, fellow, Division of Hematology, Oncology, and Bone Marrow Transplant, Department of Pediatrics, UW SMPH	Barriers to Utilizing Palliative Care in Care of Pediatric and Young Adult Patients with Sickle Cell Disease
2:55–3:15 p.m.	Doha Hassan, MD, fellow, Division of Endocrinology and Diabetes, Department of Pediatrics, UW SMPH	Metabolic Biomarkers and Growth in Children with Cystic Fibrosis
3:15–3:25 p.m.	Break	
3:25–3:45 p.m.	Adam Cordum, MD, fellow, Sports Medicine, Department of Pediatrics, UW SMPH	Coach Perceptions on Youth Football Importance
3:45–4:05 p.m.	Sarah Trinh, MD, fellow, Division of Neonatology and Newborn Nursery, Department of Pediatrics, UW SMPH	Developing a Virtual Reality Platform for Neonatal Resuscitation Training
4:05–4:25 p.m.	Katie Voelz, MD, fellow, Division of Hematology, Oncology, and Bone Marrow Transplant, Department of Pediatrics, UW SMPH	Pilot Study: Comparing the Effect of the Addition of Blinatumomab to Standard Backbone Therapy for NCI Standard Risk B-Cell ALL on Vaccine Specific Antibody Response for Vaccine Preventable Diseases
4:25–4:45 p.m.	Jesse Boyett Anderson, MD, fellow, Division of Cardiology, Department of Pediatrics, UW SMPH	What Heart Programs Have to Say About Kids' Brains
4:45–5:05 p.m.	Bryan Vonasek, MD, postdoctoral trainee, Divisions of Infectious Diseases and Global Pediatrics, Department of Pediatrics, UW SMPH	Prevalence of Treatable Infections in Hospitalized Malawian Children Under Five Years Old with Severe Acute Malnutrition

Ellen R. Wald Faculty Research Forum

Thursday, May 16 | 9:30–11:30 a.m. | HSLC 1335 & Zoom

Time	Speaker	Presentation Title
9:30–10 a.m.	Rebecca Bound, associate director, Research, Department of Pediatrics, UW SMPH	Research Updates from the Research Administrative Team
10–10:05 a.m.	Dan O’Connell, MD, associate professor, interim division chief, Division of Gastroenterology, Hepatology, and Nutrition, Department of Pediatrics, UW SMPH	Welcome!
10:05–10:25 a.m.	Whitley Hulse, MD, assistant professor, Division of Neonatology and Newborn Nursery, Department of Pediatrics, UW SMPH	Growing Little PEAPODs
10:25–10:45 a.m.	Jo Wilson, MD, clinical instructor, Division of Allergy, Immunology, and Rheumatology, Department of Pediatrics, UW SMPH	A Look at Rhinovirus Circulation Patterns in Children
10:45–11:05 a.m.	Neil Munjal, MD, MS, assistant professor, Division of Critical Care, Department of Pediatrics, UW SMPH	Predicting Neurological Deterioration in the Pediatric ICU
11:05–11:25 a.m.	Heidi Kloster, MD, associate professor, associate residency program director, Division of Hospital Medicine & Complex Care, Department of Pediatrics, UW SMPH	Family LENS: Lived Experience in Scholarship Related to Children with Medical Complexity

Platform Presentation Schedule

Friday, May 17 | 1:30–3 p.m. | HSLC 1345 & Zoom

Time	Authors	Presentation Title
1:30–1:45 p.m.	Adnan Ahmad, DO, resident, Department of Pediatrics, UW SMPH	Effectiveness of Intratracheal Surfactant and Budesonide for Prevention of Bronchopulmonary Dysplasia
1:45–2 p.m.	Amber McKenna, MD, resident, Department of Orthopedics and Rehabilitation, UW SMPH	Band-Aids Don't Fix Bullet Holes: The Impact of State Legislation on Pediatric Firearm Injury Mortality 2010 through 2021
2–2:15 p.m.	Paige Condit, MD, fellow, Division of Neonatology and Newborn Nursery, Department of Pediatrics, UW SMPH	Discovery Urinary Metabolomics of Preterm Neonatal Acute Kidney Injury
2:15–2:30 p.m.	Chelsea Olson, PhD, scientist I, Division of General Pediatrics and Adolescent Medicine, SMAHRT, Department of Pediatrics, UW SMPH	Adolescents' Experiences with Cyberbullying on TikTok are Associated with Depression
2:30–2:45 p.m.	Hara Levy, MD, MMSc, professor, Division of Pulmonology and Sleep Medicine, Department of Pediatrics, UW SMPH	An In-vitro Monocyte Model for Investigating the Role of Immune Dysfunction in Cystic Fibrosis Disease Onset and Progression
2:45–3 p.m.	Juan Boriosi, MD, associate professor, Division of Critical Care, Department of Pediatrics, UW SMPH	A Quality Improvement Project to Reduce Magnetic Resonance Imaging Sedation in Children

Platform Presentation Abstracts

Friday, May 17 | 1:30–3 p.m. | HSLC 1345 & Zoom

Effectiveness of Intratracheal Surfactant and Budesonide for Prevention of Bronchopulmonary Dysplasia

Ahman AS, Filman P, Peebles PJ, Gorski D, Menda N, Kaluarachchi DC

Background: Bronchopulmonary dysplasia (BPD) is a common sequela among infants born prematurely. Incidence of BPD has remained unchanged over several decades despite the advances in neonatal care. Intratracheal surfactant mixed with budesonide (SB) is a novel therapy that has shown promising results in development of BPD by decreasing lung inflammation. There is limited data on the effectiveness of SB outside of clinical trials.

Objective: To evaluate the effectiveness of SB in preventing BPD or death.

Methods: We included all preterm infants <33 weeks gestational age hospitalized in St. Mary's Hospital neonatal intensive care unit (NICU) in Madison, WI who received >1 dose of intratracheal surfactant during 2 epochs: Epoch 1: January 2019– December 2020 and Epoch 2: January 2022–August 2023. Exclusion criteria included infants with major congenital anomalies and death prior to admission to the NICU. During Epoch 1, Poractant alfa was administered without Budesonide, and during Epoch 2, Poractant alfa was mixed with Budesonide 0.25 mg/kg. During each epoch we evaluated the primary outcome of BPD or death at 36 weeks post menstrual age among infants in the study population. BPD is defined as receiving supplemental oxygen at 36 weeks post menstrual age. Demographic and clinical data were obtained from the VON database and compared using univariate and multivariate analyses.

Results: A total of 124 infants were included in the study (75 from Epoch 1 and 49 from Epoch 2). Gestational age and birth weight were lower in Epoch 2. Incidence of death or BPD was higher in Epoch 2 (59% vs 39%) on univariate testing. However, multivariate logistic analysis controlling for gestational age, birth weight and antenatal steroid status revealed no difference in death or BPD [aOR 1.59 (0.66–3.83), $p=0.31$] between the two epochs.

Conclusion: Our study reveals that there was no difference in the primary outcome of BPD or death after introduction of SB as a treatment strategy. Large clinical trials investigating efficacy of SB are currently underway. We suggest that NICUs should wait for results of these trials before adapting this strategy into clinical practice.

Band-Aids Don't Fix Bullet Holes: The Impact of State Legislation on Pediatric Firearm Injury Mortality 2010 through 2021

McKenna A

Introduction: Firearm injuries are the leading cause of death in children. There is wide variation in state legislation of firearms. We evaluated the impact of restrictiveness of state legislation and specific types of legislation on the pediatric firearm mortality rate.

Methods: Data was obtained from the Center for Disease Control and Prevention from 2010–2021 for children 0–18 years. Fatal firearm injuries per state were included and stratified by intent (homicide, suicide, and unintentional). State ranking for firearm legislation was obtained from Giffords Law Center to Prevent Gun Violence; rankings not produced in 2011. States were annually ranked 1–12, from most to least restrictive. Of these state rankings, laws related to concealed carry and safe storage were analyzed with repeated measures mixed modeling to determine their impact on pediatric firearm mortality rates.

Results: From 2010–2021, there were a total of 29,472 pediatric firearm injury deaths, classified as homicide (16,649), suicide (9,784), unintentional (1,321), or other (718). There was a significant correlation between total deaths per 100,000 population and state gun law ranking for each of the 11 years analyzed, ranging from Spearman's Rho correlation of 0.39, $p=0.005$ in 2012 to Spearman's Rho correlation of 0.69, $p<0.0001$ in 2015. For concealed carry laws, states with no permit requirements had 5.72 deaths per 100,000, compared to 4.38 deaths per 100,000 with basic permit guidelines ($p<0.0001$), and 2.19 deaths per 100,000 with strict permit guidelines ($p<0.0001$). In states with stand your ground laws, there were 1.55 more deaths per 100,000 than in states without these laws ($p=0.0004$). States requiring use of a gun lock had 3.42 deaths per 100,000, compared to 4.71 deaths per 100,000 in states with no safe storage laws ($p=0.004$). States with negligence-based child access prevention (CAP) laws had 0.98 fewer total deaths and 0.77 fewer suicides per 100,000 (total deaths $p=0.04$, suicide $p=0.0005$). States requiring certain safety design features had 1.78 fewer deaths per 100,000 ($p=0.0087$).

Conclusions: Over a 12 year period, states with lenient firearm legislation had higher mortality. States with no permit requirements for concealed carrying have higher mortality as do states with stand your ground laws. States requiring the use of gun locks, with negligence-based CAP laws, and requiring safety design features on firearms all have lower pediatric firearm mortality.

Platform Presentation Abstracts

Friday, May 17 | 1:30–3 p.m. | HSLC 1345 & Zoom

Discovery Urinary Metabolomics of Preterm Neonatal Acute Kidney Injury

Condit P, Nightingale N, Overmyer K, Coon J, Harer M

Background: Metabolomics is the study of molecules present in every cell and goes beyond the typical biomarker approach analyzing metabolites that reflect cellular function, diet, and development. The metabolomic approach is a good fit for analyzing kidney function because it is a highly metabolic organ and is responsible for continuously filtering, secreting, and excreting multiple molecules. If the kidney becomes injured, the metabolites present in the blood and in the urine change significantly. Diagnosing acute kidney injury (AKI) in preterm neonates is challenging and determining the specific causes has been elusive.

The objective of this study was to compare urinary metabolomics in preterm neonates with and without AKI.

Design/Methods: A prospective observational study of preterm neonates born <32 week's gestational age was performed from 2021-2022. Participants were staged for AKI using the modified neonatal definition. Every 6-hour urine samples were obtained with cotton in the diaper. Metabolomic analysis was performed utilizing liquid chromatography mass spectrometry (LC-MS). Sample analysis was performed on an Acquity UPLC HSS T3 column, a Vanquish Neo System, and a Q Exactive HF Orbitrap mass spectrometer through a heated electrospray ionization (HESI II) source. The MS was operated in a polarity switching mode acquiring positive and negative full MS and MS2 spectra. The resulting LC-MS data were processed using Compound Discoverer 3.3.

Results: Of 40 enrolled participants with median birth weight 1.25 kg (IQR 1.02-1.45) and gestational age of 29 weeks (IQR 27-30), five developed AKI. 999 urine samples from 32 of the subjects were analyzed. Initial principal component analysis (PCA) demonstrated that PCA 1 and PCA 2 capture 29.6% and 10.9% of variance between samples. Samples from subjects with AKI and those without AKI were compared and metabolites that differed based on at least a log₂ fold change were identified. Furosemide, acesulfame, kyurenic acid, and hexaethylene glycol were metabolites identified that were significantly increased ($p < 0.05$) in the urine from participants with AKI.

Conclusions: Preterm neonates with clinical AKI have significant changes in urinary metabolomic profiles compared to those without AKI. Further analysis is needed to determine the exact compounds and timing of changes as it relates to AKI to know if metabolomic signatures can be used to determine AKI phenotypes and identify therapeutic targets.

8

Adolescents' Experiences with Cyberbullying on TikTok are Associated with Depression

Olson C, Kerr B, Moreno M

Background: Experiencing cyberbullying as a target is positively associated with depression for adolescents. Experiencing cyberbullying as a bystander or perpetrator and depression is less understood, particularly on the popular social media app TikTok. The purpose of this study was to evaluate the prevalence of different roles of cyberbullying on TikTok and examine the association between cyberbullying experiences and depression in adolescence.

Methods: Participants were adolescents aged 13-19 who were recruited via Qualtrics panels and completed an online survey that measured involvement in cyberbullying on TikTok as a target, a bystander, and a perpetrator. Adolescents were further categorized into eight potential involvement role categories (e.g., "target and bystander"). Depression was measured with the Patient Health Questionnaire – 8. An ANOVA with a Tukey post hoc test was conducted to examine involvement in the eight cyberbullying roles and depression. A logistic regression examined involvement in cyberbullying as a target, bystander, or perpetrator as predictors of the likelihood that adolescents reported depression (minimal and mild were grouped and compared against moderate, moderately severe, and severe depression), controlling for age, gender, and race.

Results: Of the 2206 adolescent participants (49.9% female, 47% white, mean age = 15.91, SD = 1.77), 77.3% reported they used TikTok. Of those who used TikTok, 634 (37.4%) reported involvement as a target of cyberbullying, 860 (50.7%) as a bystander, and 472 (27.9%) as a perpetrator. Compared to adolescents with no involvement, those involved in any role, except the perpetrator only role, were more likely to report higher mean depression. Further, those who experienced cyberbullying as a target, bystander, or perpetrator were significantly more likely to report moderate to severe depression than those who were not involved, ORs ranged from 1.44-1.53.

Conclusions: Findings indicate the need for schools and clinical settings to identify and prevent adolescent involvement in any cyberbullying role on TikTok and related depression symptoms. Utilizing peers and parents as a support system for adolescents who are involved as targets, bystanders, or both, who subsequently experience depression, would be valuable.

Platform Presentation Abstracts

Friday, May 17 | 1:30–3 p.m. | HSLC 1345 & Zoom

An In-Vitro Monocyte Model for Investigating the Role of Immune Dysfunction in Cystic Fibrosis Disease Onset and Progression

Chetty C, Schreier D, Simpson P, Wang G, Levy H

Background: Variants in the CFTR gene result in cystic fibrosis (CF) and a class II clinical variant of clinical significance, Δ -F508 impacts post-translational destabilization, misfolding, and ultimately degradation of CFTR protein with impairment of airway host defense, mucociliary clearance, and microbicidal activity. Although the most pronounced lung disease symptoms of CF, including chronic bacterial infection and purulent airway obstruction, are associated with dysfunctional innate immunity, the lack of cellular models has hindered progress in understanding the basis of CF airway pathogenesis. Recent evidence suggests a positive impact of modulator therapies on CFTR expression in monocytes, thereby identifying modifiable activities that trigger inflammation. The 1- α -25-dihydroxy-vitamin-D3 (Vit-D3) is known to induce promyelocytes to differentiate into monocytes/macrophage-like cells.

Methods: Promyelocytic cells HL-60 and its derivative Δ -F508 cells, and leukemic monocyte cells (THP-1) were cultured on RPMI-640 with 2mM Glutamine, 10% FBS. Cells were treated with LPS (2 μ g/ml), PMA (2 μ M) and vit-D3 (150 μ M) for 3, 5 & 7 days and analyzed for expression of monocyte surface markers by Flow cytometry and data were analyzed.

Results: Vit-D3 and PMA induced strong monocyte (CD14+) differentiation in HL-60 cells and its derivative HL-60- Δ -F508 within 5–7 days. LPS also induces significant differentiation of monocytes but not until 5–7 days in both cells. The CD14+ expression in PMA-treated HL-60 cells was 17.9% and 15.8% and in HL-60- Δ -F508 cells 16.0% and 10.4%, for days 5 & 7, respectively. Vit-D3-treated cells were significantly higher compared to PMA-treatment in both HL-60 cells (59.6% and 75.1% for days 5 & 7, respectively) and HL-60-Delta-F508 cells (94.4% and 96.5% for days 5 & 7, respectively). In contrast, the expression of CD14 was significantly high in LPS (day 5; 40.2% & day 7; 21.6%), PMA (day 5; 83.8% & day 7; 81.0%), and Vit-D3 (day 5; 97.4% & day 7; 71.3%) treated THP-1 cells.

Conclusion: Vit-D3 treatment in comparison to PMA and LPS induces monocyte differentiation most effectively in HL60- Δ -F508 cells. Additional work profiling differentiated monocytes will allow an understanding of the role of phagocytic defects in CF disease onset and progression, which is fundamental to designing new therapeutic strategies complementary to CF modulatory therapies.

A Quality Improvement Project to Reduce Magnetic Resonance Imaging Sedation in Children

Boriosi J, Bryndzia C, Smith T, Weber S, Srinivasan S, Russell M, Tiedt K, Peters M

Background: Children usually require sedation or general anesthesia (GA) to remain motionless and tolerate the MRI scanner. Sedation/GA has risks of respiratory depression, potential neurotoxicity to the developing brain, and is more costly than an awake MRI. MRI audiovisual distraction (AVD) has been shown to decrease the need for sedation by 15% to 35% in children. However, our hospital lacked MRI AVD technology.

The Objective was to decrease by at least 20% the need for moderate sedation in children 4 years and older, undergoing MRI studies at our sedation clinic, while maintaining at least 80% diagnostic quality, within radiology protocolled time, by introducing an awake MRI program.

Design/Methods: This project was conducted between July 2019 and August 2023 at a pediatric sedation clinic in a freestanding children's hospital. Stakeholders convened and created a new awake MRI workflow using a new AVD technology (Borealis in-bore video system. PDC Inc. Hartland, WI), available for clinical use on January 27, 2022. The primary outcome was the percentage of patients referred to our sedation clinic, and triaged for moderate sedation, who completed an MRI with AVD and without the need for sedatives. Outcome and process measures were assessed with statistical process control chart methodology.

Results: From February 2022 to August 2023, 448 children 4 years and older were referred for a sedated MRI. Of those, 252 children (252/448, 56%) were triaged to moderate sedation. Seventy children triaged to moderate sedation (70/252, 28%) completed an awake diagnostic MRI without sedatives. The average monthly decrease in moderate sedation use was 27%. None of the children triaged to awake MRI required rescue sedation and all studies, except 3 (4%), were within the protocolled radiology time. There was an average of \$412 cost savings per awake patient and high patient/parent satisfaction.

Conclusions: We successfully implemented an awake MRI program that decreased moderate sedation needs by 27% while maintaining a high rate of diagnostic studies, no MRI delays, high parent/patient satisfaction, and lower costs than sedation.

Poster Presentations

Friday, May 17 | 3–5 p.m. | HSLC Atrium (available all week) | Poster presenter names are **bolded**

Poster #4

A Health System Quality Improvement Initiative to Decrease Readmissions for Newborn Hyperbilirubinemia

Bajracharya R, Shadman K, Goetz E, Chen L

Poster #17

A Survey Regarding the Care of the Hemodynamically Significant Patent Ductus Arteriosus (HSPDA) Condit P

Poster #19

A Systematic Review and Meta-Analysis of Sociodemographic Disparities in Craniosynostosis

Blum J, Ng J, Craig J, Ford A, Smith R, Kota A, Moura S, Garland C, Cho D

Poster #40

A Systemic Review of Environmental Contaminants Correlated with Orofacial Clefting

Knazze J, Blum J, Bay C, Thornton S, Uchegbu N, Oniah O, Dorobek T, Garland C, Cho D

Poster #33

A Tractometry Approach for Analysis of the Corticospinal Tract in Prenatal Brain Injury

Guerrero-Gonzalez J, Sutter E, Casey C, Lowe A, Douglas D, Alexander A, Gillick B

Poster #49

Addressing Autism in the Primary Care Clinic: How Are We Doing?

Louwagie M, Murphy D, Salah A, Arendt D

Poster #39

Adolescents Who Engage in TikTok Activities They Perceive as Important Report Higher Mental Wellbeing

Kerr B, Olson C, Moreno M

Poster #66

Advancing Understanding of POU4F1-Related Ataxia Through iPSC Modeling and Phenotypic Analysis

Salemi S, Hu R, Baljinnnyam E, Liu N, Marro SG, Webb BD

Poster #71

Age Differences and Test-Retest Reliability of Myelin Water Imaging with Multicomponent MPnRAGE

Weaver J, Kecskemeti S, Guerrero-Gonzalez J, Dean D

Poster #28

Airway and Systemic Dysregulation of Interferon Responses Promote Asthma Exacerbations in Urban Children

Gaberino C, Altman M, Gill M, Bacharier L, Gruchalla R, O'Connor G, Pongracic J, Khurana Hershey G, Kattan M, Liu A, Teach S, Zoratti E, Gergen P, Viness C, Busse W, Jackson D

Poster #74

Assessing Adolescent Motivations Around E-Cigarette Initiation, Use, and Quitting in Wisconsin

Williams B, Kaye J, Conner K, Adsit R, Piper M

Poster #61

Assessment of Penicillin Allergy and Delabeling Efforts in the University Health Setting

Nordness M, Schauburger E, Painovich L

Poster #57

Association of Mean Arterial Pressure with Changes in Renal Oxygenation in Preterm Neonates

Mullally G, Harer M

Poster #24

Bone to Be Wild

Ebby C, Fliegel J

Poster #18

Cancellations in Congenital Heart Disease Surgery

Connor C, Switzer J, Zhang X, Hermsen J, Henderickson N, DeMuri G, Hokanson J

Poster #36

Caring for Patients with Hypoplasia of the Penis: Who's on the Team?

Jewell T, Lewis K, Meurer T, Scribner G, von Muchow M, Rehm J

Poster #51

CGM Use in Adolescents and Young Adults with Type 2 Diabetes

Fenske R, Mann E

Poster #53

Clinical Care, Psychosocial Referrals and Discussions of Sex and Gender Identity Among Pediatric Patients on the Monosomy X Spectrum

Meurer T, Jewell T, Scribner A, von Muchow M, Lewis AK, Rehm J

Poster #69

Comparing Multiple Recruitment Strategies for a Longitudinal Health Study of Adolescents

Suleman A, Calhoun C, Selkie E, Moreno M, Cascio C

Poster #73

Compliance with Best Practice Guidelines for Chemotherapy Documentation for Pediatrics Patients with Acute Lymphoblastic Leukemia/Lymphoma

Siy P, Whitman A, Lee-Miller C

Poster #48

Compound Heterozygous Mars2 Variants Perturb Mitochondrial Oxidative Phosphorylation in Heart

Liu N, Houten S, Webb BD

Poster Presentations

Friday, May 17 | 3–5 p.m. | HSLC Atrium (available all week) | Poster presenter names are **bolded**

Poster #50

Continuous Positive Sweat Test Despite Trikafta Therapy: A Case Report

Beshish A, Rock M, Majachani N

Poster #38

CranioSure: A Tool for Craniosynostosis Risk Assessment

Kalluri M, Blum J, Bay C, Carbullido K, Craig J, Knazze J, Kneib C, Garland C, Cho D

Poster #2

Creating and Implementing a Simulation-Based Microaggression Curriculum

Ali H, Evaristo C, Ruedinger E, Srinivasan S

Poster #59

Creation of a Dot Phrase to Transition Infants from Car Beds to Car Seats

Vaughan J, Goetz L, Cordum S, Nelson K, Majachani N, Faust S

Poster #60

Diabetes Transition Readiness Assessment: Getting READDY at School

Nicksic V, Hrkac-Budzisz A, Forbes G, Beaton W, Van Den Langenberg B, Bekx T

Poster #5

Differences in Breast Milk Composition Based on Farming Exposures and Associations with Allergic Disease

Behmer R, Tackett A, Lee K, Kalan L, Seroogy C, Kalan L, Lucey J, Singh A

Poster #41

DNA Methylomic Map of Rodent Retina during Axonal Regeneration

Koueik J, Madrid A, Rizk E, Hariharan N, Papale L, Alisch R, Iskandar B

Poster #16

Early Corticospinal Tract Development and Motor Outcomes in Infants with Perinatal Brain Injury

Collins KM, Sutter EN, Casey CP, Dean DC, McAdams RM, Gillick BT

Poster #47

Early Impressions and Adoption of the AtriAmp for Managing Arrhythmias Following Congenital Heart Surgery

Leopold S

Poster #76

Educating & Empowering: Evaluation Peer Education and Community Engagement Models for Delivering Health Information to Youth in Kampala, Uganda

Wright K, Conway J

Poster #14

Establishing Multidisciplinary Neurodevelopmental Monitoring in Infants and Toddlers with Congenital Heart Defects

Cieminski T, Munjal N, Kessler-Jones A, Mietchen J, Chinman G, Boyett Anderson J, Sears L, Currey N, Ferrazzano P

Poster #13

Estrogen Receptor Alpha-Mediated Sex-Specific Neuroprotection via TrkB Signaling Following Neonatal Hypoxic Ischemia

Cetin F, Cagatay N, Taparli O, Sehikh T, Logoa-Miguel C, Skraptis A, Yapici S, Camci F, Ferrazzano P, Levine J, Cengiz P

Poster #58

Evaluation of Madison Adolescents' Attitudes Towards Outdoors Exposures and Health

Murphy D, Carrel A, Webber S

Poster #72

Ex Vivo Expansion of Autologous Natural Killer Cells for the Treatment of Osteosarcoma in Companion Canines

Weisnicht A, Cho M, Vail D, Capitini C

Poster #15

Exploring Integrative Medicine in Pediatric Resident Education

Clemens J, Zhao Q, Mathur M

Poster #21

Feasibility of Driven Equilibrium Single Pulse Observation of T1 (DESPOT1) at Ultra-Low Field

Dean D, Guerrero-Gonzalez J, Weaver J, DiPiero M, Rangunathan S, Ljungberg E, Padormo F, Deoni S

Poster #25

Follow Up Study: Sustained Impact of Reduced Opioid Prescribing Following Outpatient Pediatric Urologic Surgery

Finup J, Mesdjian K, Garvey T, Farhat W

Poster #55

High-Impact, Modifiable Outcomes from the National Survey of Children's Health: Identifying Expert Consensus

Morgen M, Gatewood A, Brosco J, Houtrow A, Chung P, Ghandour R, Payne S, Collier R

Poster #20

Hippocampal Neurosteroids Contents Following Neonatal Hypoxia-Ischemia

Valdés-Arciniega TJ, Cetin F, Isik I, Cagatay N, Ozaydin B, Yapici S, Collo L, Goy RW, Ferrazzano P, Levine JE, Kapoor A, Cengiz P

Poster Presentations

Friday, May 17 | 3–5 p.m. | HSLC Atrium (available all week) | Poster presenter names are **bolded**

Poster #29

How Adolescents and Adults Evaluate Online Health Resources: A Comparative Ethnographic Study

Garlough-Shah I, Salerno A, Calvin A, Moreno M

Poster #26

Impact of Bowel Clean-Out on the Severity of Presenting Symptoms in Children with Bowel and Bladder Dysfunction (BBD)

Finup J

Poster #9

Implementation of a Standardized Pediatric Deep Sedation Screening Tool

Bryndzia C, Peters M, Christy P, Boriosi J, Knapton J, Shadman K

Poster #62

Implementation of an Outpatient Best Practice Advisory to Increase Allergy Referrals for Penicillin Delabeling Evaluation

Nordness M, Schauburger E

Poster #46

Increases in Renal Oxygenation after Caffeine Administration in Preterm Neonates 4 to 14 Days Old

Lauer R, Schwingle S, Nelson C, Harer M

Poster #31

Increasing the Value of Spontaneous Breathing Trials in the PICU through Automated Continuous Screening

Gray Z, Bigham A, Shadman K, Munjal N, Wilhelm M

Poster #64

Investigating Mitochondrial Reactive Oxygen Species (ROS) Production in MARS2 Deficiency

Pendergast A, Polyak E, Webb BD

Poster #7

Is Rest Really Best? Enhancing Ventilation Weaning in the Pediatric ICU: A Quality Improvement Initiative

Bigham A, Gray Z, Wilhelm M, Munjal N

Poster #8

Medical Information Presented by Transgender Influencers on YouTube

Bliss L, Boyd K, Selkie E

Poster #1

Moyamoya Syndrome in a Child with an Unbalanced Rearrangement of 6p: Building Evidence of a New Genotype-Phenotype Association

Abd Allah A, Prado K, Wallace A

Poster #44

Mpox Virus (MPXV) Vertical Transmission and Fetal Demise in a Pregnant Rhesus Macaque Model

Krabbe N, Mitzey A, Bhattacharya S, Razo E, Zeng X, Bekiaries N, Moy A, Kamholz A, Karl J, Daggett G, Capuano S, Simmons H, Basu P, Weiler A, Vansleet G, O'Connor D, Friedrich T, Golos T, Mohr E

Poster #11

MRI Injury Patterns in Children with Severe Traumatic Brain Injury

Camci F, Rebsamen S, Field A, Broman A, Cengiz P, Alexander A, Ferrazzano P

Poster #45

Multiple Lactobacillus Infections Caused by Probiotics at Pediatric and Adult Academic Medical Centers

Lammers M, Samuel A, Nachreiner J, Bogenschutz M, Koffarnus K, Schulz L, Shadman K, McBride J

Poster #37

“My Voice DOES Matter”: Impact of Adolescent Participation in a Youth-Driven Community Program

Jewell T, Aeschbach C

Poster #54

Neural Correlates Associated with Conformity in Adolescent and Young Adult Men

Minich M, Falk E, Cooper N, Cosme D, Chan H, Pei R, O'Donnell M, Cascio C

Poster #78

NICU Performance of Newborn Hearing Screening Metrics According to Level of Care: A Statewide Analysis

Qadadha Y, Garcia G, Xuan Huang S, Ricci L, Seeliger E, Kessel J, Puricelli M

Poster #27

Novel Phytochemicals-Based Media Supports NK Cell Expansion Using Neither Feeder Cells Nor IL-2, While Achieving High Cytotoxicity Against Cancer Cells

Forsberg M, Shahi De A, Gillig M, Ohri R, Capitini C

Poster #75

Parental Perceptions of Changing Child Behaviors and Associations with Reported Physical Discipline

Wolf A, Kerr B, Kotleski K, Zhao Q, McGregory K

Poster #52

Parenting Classes are Associated with Higher Parent Self-Reporting of Child Physical Discipline

McGregory K, Kerr B, Zhao Q, Moreno M

Poster #10

Patterns of Agreement with Policy Impacting Transgender Youth Among Parents of Adolescents

Calvin A, Allen B, Selkie E

Poster #63

Perspectives on Integrative Approaches Among Parents of Pediatric Patients in an Urban U.S. Midwestern Community

Pearson A, Kerr B, Kotleski K, Mathur M

Poster Presentations

Friday, May 17 | 3–5 p.m. | HSLC Atrium (available all week) | Poster presenter names are **bolded**

Poster #77

Preliminary Pilot Data on the Effect of Early Injury Burden and Life Stress on Executive Function Development, Following Perinatal Brain Injuries

Trapp N, Bender, Chen A, Mendez A, Carrasco M

Poster #23

Prenatal Associations of Maternal Psychological State with Infant Gray Matter Microstructure

DiPiero M, Goncalves Rodrigues P, Justman M, Roche S, Bond E, Guerrero Gonzalez J, Dean D

Poster #68

Prevalence of Distal Hypospadias Diagnosis and Subsequent Medical Interventions in Pediatric Patients

Scribner A, Jewell T, Von Muchow M, Meurer T, Lewis AK, Rehm J

Poster #65

Remission and Relapse of Post-Hemolytic Uremic Syndrome Diabetes in a 25-Month-Old

Russell B, Furstenberg-Knauff M, Bekx T

Poster #42

Research Efforts to Resolve 60 Years of CSF Shunt Malfunctions

Koueik J, Hsu D, Chebel R, Yang Z, Kraemer M, Rubin T, Sivan V, Teo Broman A, Medow J, Luzzio C, Iskander B

Poster #30

Rural Access to Pediatric Teleneuromodulation in the Home Setting

Gavioli M, Lench D, Christopher P, Nytes G, Ikonomidou C, Villegas M, Gillick B

Poster #67

Severe Hypercalcemia and Lytic Lesions in a 10-Year-Old Female

Salvatore A, Damodharan S, Paloian N, Lee-Miller C

Poster #12

Sexually Differentiated Gene Expressions Following Neonatal Hypoxia Ischemia: A Transcriptomic Study

Camci F, Cagatay S, Bicki E, Cetin F, Yapici S, Schmidt D, Madrid A, Ferrazzano P, Levine J, Sousa A, Cengiz P

Poster #35

The University of Wisconsin Undiagnosed Disease Program: Unveiling Rare Neurodevelopmental Disorders in Clinical Exome-Negative Patients

Heilmann J, Hall A, Pavelec D, Meyn M, Webb B

Poster #43

Transgenerational Inheritance of a Folate-Driven Axon Regeneration Trait is Mediated by Sperm DNA Methylation

Koueik J, Madrid A, Chebel R, Hariharan N, Papale L, Alisch R, Iskander B

Poster #3

Understanding Development Windows in Iron Deficiency-Related Abnormal Kidney Development

Babu A

Poster #22

Using a Community-Based Participatory Research Approach to Develop and Agenda to Improve Health for Justice-Involved Pregnant and Postpartum People and their Children

Denson J, Branham C

Poster #6

Using Quality Improvement Methodology to Assess the Effect of a Longitudinal Advocacy Curriculum on Resident Engagement in Advocacy

Bethel J, Yanny M, Sleeth C, Sklansky D

Poster #32

Volumetric Analysis of Early Brain Injury Impact on M1 and Resultant Motor Outcomes

Grimaldo A, Sutter E, Casey C, de Abreu e Gouvea A, Dean D, McAdams R, Gillick B

Poster #56

White Matter Microstructure at 1 Month is Associated with the Development of Visuospatial Processing

Mukhtarova N, DiPiero M, Planalp B, Dean D

Poster #34

Wisconsin's Baby Badger Network: Improving Access to Rapid Genomic Testing to Critically Ill Infants Across the State

Hall A, Meyn S, Basel D, McAdams R, Acharya K, Scott-Schwoerer J

Poster #70

Young Adults Prefer an In-Person Diabetes Transition Clinic During Transfer of Care

Vidmar K, Yerges A, Stanek R, Van Den Langenberg B, Carrel A, Bekx T