

Emergency Medicine

Division Details

RESEARCH AND TRAINING DETAILS

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|----------------------------------|-------------|
| Faculty | 46 |
| Joint Appointment Faculty | 3 |
| Total Annual Grant Award Dollars | \$2,804,011 |
| Total Publications | 105 |

CLINICAL ACTIVITIES AND TRAINING

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|-----------------------|---------|
| Staff Physicians | 32 |
| Clinical Fellows | 12 |
| Outpatient Encounters | 173,277 |



Row 1: L Vaughan, M Gittelman, S Reeves, S Kennebeck, C McAneney, A Rinderknecht

Row 2: T Byczkowski, J Luria, C Bria, S Porter, J Grupp-Phelan, R Ruddy, E Duma, T Rhine

Row 3: K Phelan, R Strait, H Schwartz, T Florin, J Gonzalez-del-Rey, C Schubert

Research Highlights

Jacqueline Grupp-Phelan, MD, MPH-ED, - Screening and Brief Mental Health Intervention

The National Center for Injury Prevention and Control invited Dr. Grupp-Phelan, MD, MPH, along with other highlighted R01 funded investigators, based on her work "Suicidal Teens Accessing Treatment in the ED". The grant tested the effectiveness of a brief treatment engagement intervention for adolescent emergency department (ED) patients with non-psychiatric presenting complaints who by screening identified to be at risk for suicidal behaviors. Dr Grupp-Phelan along with nationally known suicidology experts Dr. Cheryl King, PhD, from the University of Michigan, and Dr. David Brent, MD, from Western Psychiatric Institute of Pittsburgh, are multi-principal investigators who received a Supplemental Grant to support additional aims for the UO1 Emergency Department Screen for Teens at Risk for Suicide (ED-STARS). This multi-site collaborative study with the Pediatric Emergency Care and Applied Research Network (PECARN) will determine prospectively the optimal suicide risk screening strategy for youth who present to the pediatric ED and develop and validate a parsimonious algorithm for risk stratification to facilitate the triage of youth to "acute risk," "at risk," and "no further follow-up needed" groups, with recommendations for each group.

FY16 Highlights National Leaders

Highlights from our successful FY16 year showcase a division rich with national leaders in emergency medicine with individual and team-based success in research.

Important national leadership roles for division members in FY16 include: Dr. Nathan Timm, MD, serving on the Committee for Pediatric Emergency Medicine at the American Academy of Pediatrics (AAP), the leading policy group for our specialty; Dr. Javier Gonzalez del Rey, MD, MEd, who is now the chair-elect of the Section of Emergency Medicine at the AAP and the President-Elect of the Association for Pediatric Program Directors; and Dr. Holly Depinet, MD, MPH, who holds key roles for the newly formed Children's Hospital Association's

[Improving Pediatric Sepsis Outcomes](#) (IPSO) collaborative (Expert Advisory Committee and Steering Committee). This “collaborative of collaboratives” involves hospital-wide work in 36 hospitals for the next three years, and takes an innovative approach to improving all aspects of sepsis care (including prevention) across the spectrum of disease.

Emergency Medicine Research

Pediatric emergency medicine at Cincinnati Children’s continues in a key leadership role for the research consortium [PECARN](#) (Pediatric Emergency Care Applied Research Network). Cincinnati Children’s has been a member of the [Health Resources and Service Administration](#) (HRSA)/[Maternal and Child Health Bureau](#) (MCHB) funded PECARN since 2001, and has been one of six nodes since 2011. Cincinnati Children’s has once again received funding as the nodal center with [Dr. Richard Ruddy, MD](#), as the nodal principal investigator (PI) through 2019. The node includes the Emergency Department from Cincinnati Children’s, [Children’s Hospital of Wisconsin](#) and [St. Louis Children’s Hospital at Washington University](#). Nicole McClanahan is the nodal administrator and secretary elect of the PECARN Steering Committee, [Dr. L. Babcock, MD, MS](#), is the site PI for Cincinnati. [Dr. Hamilton Schwartz, MD](#), is the pre-hospital scientific advisor for the next four years.

Important studies underway include:

- Electronic Health Record registry ([E. Alessandrini, MD, MSCE](#), as Co-I) implementing all ED records and making a quality report card by site and provider.
- Probiotics for Acute Gastroenteritis ([Seema Bhatt, MD](#), and R. Ruddy as site PI) – RCT for healthy children less than 4 years of age with gastroenteritis.
- Suicide Screening ([J. Grupp-Phelan, MD, MPH](#), as U01 co-PI) – below.
- Knowledge Translation of PECARN Head Injury Rule (E. Alessandrini as co-I) – use of decision support to reduce CT rates in very low risk children with head injury.
- Alcohol Screening in Teens (J. Grupp-Phelan as site PI) – validate the Center for Disease Control (CDC) Alcohol screening questions and perform follow up for a cohort.
- Biosignatures in Infants < 2 months with Fever (R. Ruddy as site PI) – with second RO1 to continue the work just receiving funding.
- Prehospital and ED Validation of Risk for Cervical Spine Injury (H. Schwartz as site PI) – a nodal study.
- Safety in the ED (R. Ruddy as site PI).

The Division of Emergency Medicine FY17 Scientific Agenda

The Division of Emergency Medicine embraces a scientific agenda that honors the generalist nature of our sub-specialty and our unique opportunity to intervene and improve health across 170,000 patient visits at our sites for ED-based care and urgent care. With the arrival of new Division Director Dr. Stephen Porter, the academic portfolio in pediatric emergency medicine (PEM) is being re-imagined as a matrix of scientific discovery in the areas of Brain/Behavior and Infection/Inflammation, and systematic investigations in the “Science of Everyday Care” which unifies our research efforts in simulation, quality improvement, informatics, and communication science.

Melinda Mahabee-Gittens, MD, MS, - Tobacco Cessation Intervention

In August 2015, [Dr. Mahabee-Gittens, MD, MS, CTTS](#), received funding from the National Institute of Child Health and Human Development ([NICHD](#)) (R01HD083354) to conduct a randomized trial to test the efficacy of a multi-level tobacco cessation intervention designed to reduce smoke exposure in children compared to an active control condition. This study is actively recruiting 750 caregivers who smoke, and who bring their children into the Emergency Department, or Urgent Care, with a potentially smoke exposure-related illness. Using the child’s illness as a motivator to quit smoking, caregivers randomized into the Screening, Brief Intervention, and Referral to Treatment (SBIRT) group receive motivational interviewing-based counseling and medication to help them quit smoking as a way to improve their child’s health. Researchers assess caregivers at baseline, 6-weeks, and 6-months. In addition to collecting behavioral measures, this study is collecting biological and environmental samples to assess secondhand and third hand smoke exposure in enrolled children. Outcomes include caregiver cessation and child smoke exposure. If effective, this research model has the potential to

reach at least one million smokers a year and could result in significant reductions in smoke-related pediatric illness, caregivers' tobacco use, and related costs in this population.

Todd Florin, MD, MSCE, - Biomarkers and Risk Stratification in Pneumonia

In 2015, [Dr. Todd Florin, MD, MSCE](#), received a K23 mentored career development award from the [National Institute of Allergy and Infectious Diseases](#) entitled "Biomarkers and Risk Stratification in Pediatric Community-Acquired Pneumonia." Community-acquired pneumonia is a leading cause of hospitalization and substantial cause of morbidity for children in the United States. The decision to hospitalize a child, the most important decision in the management of pneumonia, requires accurate assessment of disease severity and prediction of clinical outcomes. By defining risk factors for hospitalization and using objective diagnostic tests to evaluate pneumonia severity in children, this study will develop a practical clinical scoring tool that will combine clinical factors with biomarkers to improve our ability to predict risk for significant clinical outcomes and guide treatment decisions by identifying which children with pneumonia require hospitalization. Ultimately, this work will improve clinical outcomes by targeting those at risk for significant disease while reducing unnecessary hospitalization and resource use in those at low-risk. The K23 grant leverages the ongoing prospective cohort study (primary investigator (PI): Florin), Catalyzing Ambulatory Research in Pneumonia Etiology and Diagnostic Innovations in Emergency Medicine (CARPE DIEM), that has enrolled children 3 months to 18 years of age in the Cincinnati Children's emergency department with community-acquired pneumonia since July 2013. CARPE DIEM has received funding from several internal Cincinnati Children's mechanisms, including a CCTST KL2 (PI: Florin), Division of Emergency Medicine Small Grant (PI: Florin), Trustee Award (PI: [Lilliam Ambroggio, PhD, Division of Hospital Medicine](#)), and an Academic Research Committee grant (PI: Ambroggio), and externally from the [Gerber Foundation](#) (PI: Florin). The mentorship team on the K23 includes faculty in the Divisions of [Emergency Medicine](#) ([Richard Ruddy, MD](#)), Hospital Medicine, [Infectious Diseases](#) ([Samir Shah, MD, MSCE](#)), and [Critical Care Medicine](#) ([Hector Wong, MD](#)).

Significant Publications

Florin T, Aronson P, Neuman M. [Rapid Brain Magnetic Resonance Imaging: An Alternative to Head Computed Tomography for Evaluation of Ventricular Shunt Malfunction Reply](#). *J Pediatr*. 2016; 171:320-21.

In this retrospective longitudinal cohort study of Emergency Department (ED) visits from 2003-2013 across 31 pediatric hospitals, 1,319 children with VP shunt placed in 2003 visited the ED 6,636 times during the subsequent decade. Cranial computed tomography (CT), performed in half of these visits, with 20% of ED visits with CT scans associated with VP shunt revision. A very small percentage (6%) of the patients received 10 or more CT scans, yet these patients accounted for almost 40% of all of the ED visits with imaging. Importantly, the mean number of CT scans per patient varied 20-fold across hospitals, with the individual hospital accounting for the majority of variation in CT utilization. Strategies need to identify those children at risk of shunt malfunction to reduce variability in CT utilization and radiation exposure in the ED.

Bennett BL, Steele P, Dixon CA, [Mahabee-Gittens EM](#), [Peebles J](#), Hart KW, Lindsell CJ, [Chua MS](#), Hirsh R. [Serum Cardiac Troponin I in the Evaluation of Nonaccidental Trauma](#). *J Pediatr*. 2015; 167:669-73 e1.

This project is the first prospective study to investigate screening for occult cardiac injury in this population. This case-control study showed that troponin I is more often elevated in children with non-accidental trauma than uninjured healthy controls. Twenty-six percent of children > 3 months of age with suspected non-accidental trauma had elevation of troponin I. Elevation of troponin I in this population has the potential to illustrate the extent of injury to these young patients. The results of this study have been the impetus for including troponin I as part of the standard non-accidental trauma work-up at Cincinnati Children's and multiple other centers.

Reed J, Huppert J, Taylor R, Gillespie G, [Alessandrini E](#), Kahn J. [The Impact of Post-Visit Emergency Department Follow-up on Sexually Transmitted Infection Related Return Visits](#). *Ann Public Health Res*. 2015; 2:1-4.

This study demonstrated that Emergency Department (ED) adolescents contacted regarding sexually transmitted infection (STI) with positive results did not have significantly different ED return visits rates for STI testing than those not contacted. However, among adolescents who returned to any setting, one third returned to non-ED settings for STI care suggesting that a post-visit contact from a healthcare provider may be one strategy to improve linkage to a primary medical home.

Mahabee-Gittens EM, Khoury JC, Ho M, **Stone L**, Gordon JS. **A smoking cessation intervention for low-income smokers in the ED.** *Am J Emerg Med.* 2015 Aug;33(8):1056-61.

This clinical trial successfully provided a brief emergency department based cessation intervention to 200 low income caregivers who smoke. Caregivers were highly nicotine dependent (90%), and children were highly smoke exposed as 60% and 76% of caregivers allowed smoking in the home and car, respectively. Encouragingly, at follow-up, we found that our brief intervention prompted a substantial number of quit attempts and resulted in significant reductions in cigarette consumption, increased smoking bans, and reduced smoking prevalence among this underserved population. This intervention was viable to incorporate during the busy emergency department visit, acceptable by caregivers, and provided a basis for conducting future large cessation trials in the emergency department setting.

Division Publications

1. Alisic E, Hoysted C, Kassam-Adams N, Landolt M, Curtis S, Kharbanda A, Lyttle M, Parri N, Stanley R, Babl F. **Psychosocial Care for Injured Children: Worldwide Survey among Hospital Emergency Department Staff.** *J Pediatr.* 2016; 170:227.
2. Anders S, Dexheimer J. **Incorporating Usability Testing into the Development of Healthcare Technologies.** In: M Khosrow-Pour, ed. *E-Health and Telemedicine: Concepts, Methodologies, Tools, and Applications.* Hershey PA: Information Resources Management Association; 2015:429-43.
3. Anderson B, Gittelman M, Mann J, Cyriac R, Pomerantz W. **High School Football Players' Knowledge and Attitudes About Concussions.** *Clin J Sport Med.* 2016; 26:206-09.
4. Babcock L, Kurowski B. **Identifying Children and Adolescents at Risk for Persistent Postconcussion Symptoms.** *JAMA.* 2016; 315:987-88.
5. Babcock L, Yuan W, Leach J, Nash T, Wade S. **White Matter Alterations in Youth with Acute Mild Traumatic Brain Injury.** *J Pediatr Rehabil Med.* 2015; 8:285-96.
6. Bailey R, Taylor RG, FitzGerald MR, Kerrey BT, LeMaster T, Geis GL. **Defining the Simulation Technician Role: Results of a Survey-Based Study.** *Simul Healthc.* 2015; 10:283-7.
7. Beck AF, Florin TA, Campanella S, Shah SS. **Geographic Variation in Hospitalization for Lower Respiratory Tract Infections across One County.** *JAMA Pediatr.* 2015; 169:846-54.
8. Bennett B. **Basilar Skull Fractures.** In: L Frasier, T Hinds, F Luyet, eds. *Pediatric Abusive Head Trauma Pocket Atlas, Volume 1: Traumatic Injuries.* St Louis MO: STM Learning; 2016:161-68.
9. Bennett B. **Mimics of Abusive Fractures.** In: L Frasier, T Hinds, tF Luye, eds. *Pediatric Abusive Head Trauma Pocket Atlas, Volume 2: Medical Mimics.* St. Louis MO: STM Learning, Inc.; 2016:139-39.
10. Bennett BL, Steele P, Dixon CA, Mahabee-Gittens EM, Peebles J, Hart KW, Lindsell CJ, Chua MS, Hirsh R. **Serum Cardiac Troponin I in the Evaluation of Nonaccidental Trauma.** *J Pediatr.* 2015; 167:669-73 e1.
11. Bigelow AM, Gothard MD, Schwartz HP, Bigam MT. **Intubation in Pediatric/Neonatal Critical Care Transport: National Performance.** *Prehosp Emerg Care.* 2015; 19:351-7.
12. Bignall WJ, Jacquez F, Vaughn LM. **Attributions of Mental Illness: An Ethnically Diverse Community Perspective.** *Community Ment Health J.* 2015; 51:540-5.
13. Blumberg SM, Mahajan PV, O'Connell KJ, Chamberlain JM, Shaw KN, Ruddy RM, Lichenstein R, Funai T, Lillis KA, Pediatric Emergency Care Applied Research N. **Radiologic Safety Events within a Pediatric Emergency Medicine Network.** *Pediatr Emerg Care.* 2016.

14. Borycki E, Cummings E, Dexheimer JW, Gong Y, Kennebeck S, Kushniruk A, Kuziemy C, Saranto K, Weber J, Takeda H. **Patient-Centred Coordinated Care in Times of Emerging Diseases and Epidemics. Contribution of the Imia Working Group on Patient Safety.** *Yearb Med Inform.* 2015; 10:207-15.
15. Butteris SM, Schubert CJ, Batra M, Collier RJ, Garfunkel LC, Monticalvo D, Moore M, Arora G, Moore MA, Condurache T, Sweet LR, Hoyos C, Suchdev PS. **Global Health Education in Us Pediatric Residency Programs.** *Pediatrics.* 2015; 136:458-65.
16. Byczkowski T, Gillespie G, Kennebeck S, Fitzgerald M, Downing K, Alessandrini E. **Family-Centered Pediatric Emergency Care: A Framework for Measuring What Parents Want and Value.** *Acad Pediatr.* 2016; 16:327-35.
17. Daily J, FitzGerald M, Downing K, King E, del Rey JG, Ittenbach R, Marino B. **Important Knowledge for Parents of Children with Heart Disease: Parent, Nurse, and Physician Views.** *Cardiol Young.* 2016; 26:61-9.
18. Dandoy CE, Hariharan S, Weiss B, Demmel K, Timm N, Chiarenzelli J, Dewald MK, Kennebeck S, Langworthy S, Pomales J, Rineair S, Sandfoss E, Volz-Noe P, Nagarajan R, Alessandrini E. **Sustained Reductions in Time to Antibiotic Delivery in Febrile Immunocompromised Children: Results of a Quality Improvement Collaborative.** *BMJ Qual Saf.* 2016; 25:100-9.
19. Dexheimer J, Borycki E. **Mobile Technologies in the Emergency Department: Towards a Model for Guiding Future Research.** In: M Khosrow-Pour, ed. *E-Health and Telemedicine: Concepts, Methodologies, Tools, and Applications.* Hershey PA: Information Resources Management Association; 2015:1707-17.
20. Dexheimer J, Borycki E. **Use of Mobile Devices in the Emergency Department: A Scoping Review.** *Health Informatics J.* 2015; 21:306-15.
21. Dexheimer J, Gu L, Guo Y, Johnson L, Kerckmar C. **Design and Implementation of the Asthma Treat Smart System in a Pediatric Institution.** *KM&EL.* 2015; 7:353-66.
22. Eckerle MD, Namde M, Holland CK, Ruffner AH, Hart KW, Lindsell CJ, Reed JL, Lyons MS. **Opportunities for Earlier HIV Diagnosis in a Pediatric Ed.** *Am J Emerg Med.* 2015; 33:917-9.
23. Ellison A, Quayle K, Bonsu B, Garcia M, Blumberg S, Rogers A, Wootton-Gorges S, Kerrey B, Cook L, Cooper A. **Use of Oral Contrast for Abdominal Computed Tomography in Children with Blunt Torso Trauma.** *Ann Emerg Med.* 2015; 66:107-15.
24. Engel SM, Bradman A, Wolff MS, Rauh VA, Harley KG, Yang JH, Hoepner LA, Barr DB, Yolton K, Vedar MG, Xu YY, Hornung RW, Wetmur JG, Chen J, Holland NT, Perera FP, Whyatt RM, Lanphear BP, Eskenazi B. **Prenatal Organophosphorus Pesticide Exposure and Child Neurodevelopment at 24 Months: An Analysis of Four Birth Cohorts.** *Environ Health Persp.* 2016; 124:822-30.
25. Eriksson E, Eliasson K, Hellström A, Maatta S, Vaughn L. **When They Talk About Motherhood: A Qualitative Study of Three Groups' Perceptions in a Swedish Child Health Service Context.** *Int J Equity Health.* 2016; 15.
26. Ewan LA, McLinden D, Biro F, DeJonckheere M, Vaughn LM. **Mapping the Views of Adolescent Health Stakeholders.** *J Adolesc Health.* 2016; 58:24-32.
27. Faris G, Byczkowski T, Ho M, Babcock L. **Prediction of Persistent Postconcussion Symptoms in Youth Using a Neuroimaging Decision Rule.** *Acad Pediatr.* 2016; 16:336-42.
28. Finkelman FD, Khodoun MV, Strait R. **Human Ige-Independent Systemic Anaphylaxis.** *J Allergy Clin Immunol.* 2016; 137:1674-80.
29. Florin T. **Cough.** In: R Bachur, K Shaw, eds. *Fleisher & Ludwig's Textbook of Pediatric Emergency Medicine.* Philadelphia, PA: Lippincott Williams & Wilkins; 2015:115-19.
30. Florin T, Aronson P, Hall M, Kharbanda A, Shah S, Freedman S, Alpern E, Mistry R, Simon H, Berry J. **Emergency Department Use of Computed Tomography for Children with Ventricular Shunts.** *J Pediatr.* 2015; 167:1382.

31. Florin T, Aronson P, Neuman M. **Rapid Brain Magnetic Resonance Imaging: An Alternative to Head Computed Tomography for Evaluation of Ventricular Shunt Malfunction Reply.** *J Pediatr.* 2016; 171:320-21.
32. Gillespie G, Pekar B, Byczkowski T, Fisher B. **Worker, Workplace, and Community/Environmental Risk Factors for Workplace Violence in Emergency Departments.** *Arch Environ Occup Health.* 2016:1-8.
33. Gittelman MA, Denny S, Anzeljc S, FitzGerald M, Arnold MW. **A Pilot Quality Improvement Program to Increase Pediatrician Injury Anticipatory Guidance.** *J Trauma Acute Care Surg.* 2015; 79:S9-14.
34. Glass T, Ruddy R, Alpern E, Gorelick M, Callahan J, Lee L, Gerardi M, Melville K, Miskin M, Holmes J. **Traumatic Brain Injuries and Computed Tomography Use in Pediatric Sports Participants.** *Am J Emerg Med.* 2015; 33:1458-64.
35. Graham K, Schellinger A, Vaughn L. **Developing Strategies for Positive Change: Transitioning Foster Youth to Adulthood.** *Child Youth Serv Rev.* 2015; 54:71-79.
36. Hang B, Babcock L, Hornung R, Ho M, Pomerantz W. **Can Computerized Neuropsychological Testing in the Emergency Department Predict Recovery for Young Athletes with Concussions?** *Pediatr Emerg Care.* 2015; 31:688-93.
37. Hanson HR, Pomerantz WJ. **History of Tick Bite: A Gift or a Red Herring?** *Pediatr Emerg Care.* 2015; 31:844-5.
38. Henderson C, FitzGerald M, Hoehn K, Weidner N. **Pediatrician Ambiguity in Understanding Palliative Sedation at the End of Life.** *Am J Hosp Palliat Care.* 2015.
39. Hoehn E, FitzGerald M, Bhatt S, Robinson V, Lippe J, Reed J. **Do Adolescents with Higher Knowledge of Hiv Have Lower Sexual Risk Behaviors?** *Pediatr Emerg Care.* 2016.
40. Hsu D, Nypaver M, Fein DM, McAneney C, Santen S, Nagler J, Zuckerbraun N, Roskind CG, Reynolds S, Zaveri P, Stankovic C, House JB, Langhan M, Titus MO, Dahl-Grove D, Klasner AE, Ramirez J, Chang T, Jacobs E, Chapman J, et al. **Essentials of Perm Fellowship Part 2: The Profession in Entrustable Professional Activities.** *Pediatr Emerg Care.* 2016; 32:410-8.
41. Johnson L. **Burns and Thermal Injury.** In: L Feld, J Mahan, eds. *Succinct Pediatrics: Evaluation and Management for Common and Critical Care.* Elk Grove Village, IL: American Academy Of Pediatrics; 2015:547-58.
42. Johnson L. **Comprehension Questions 17-1 - 17-6.** In: S Ludwig, S Shah, eds. *Symptom-Based Diagnosis in Pediatrics on Accesspediatrics.* New York: Mcgraw-Hill Education; 2015.
43. Johnson L. **Trauma and Assessment of Injury.** In: L Feld, J Mahan, eds. *Succinct Pediatrics: Evaluation and Management for Common and Critical Care.* Elk Grove Village, IL: American Acadademy Pediatrics; 2015:759-70.
44. Johnson L, Chambers P, Dexheimer J. **Asthma-Related Emergency Department Use: Current Perspectives.** *Open Access Emerg Med.* 2016; 8:47-55.
45. Kerrey BT, Mittiga MR, Rinderknecht AS, Varadarajan KR, Dyas JR, Geis GL, Luria JW, Frey ME, Jablonski TE, Iyer SB. **Reducing the Incidence of Oxyhaemoglobin Desaturation During Rapid Sequence Intubation in a Paediatric Emergency Department.** *BMJ Qual Saf.* 2015; 24:709-17.
46. Kheir J, Sobolewski B, Varnell C, Zackoff M. *The Pocket.* Cincinnati OH:Cincinnati Children's Hospital Medical Center.
47. Kheir J, Sobolewski B, Varnell C, Zackoff M. *The Pocket.* Cincinnati OH:Cincinnati Children's Hospital Medical Center.
48. Kucukerden M, Huda R, Tuzun E, Yilmaz A, Skriapa L, Trakas N, Strait R, Finkelman F, Kabadayi S, Zisimopoulou P. **Musk Induced Experimental Autoimmune Myasthenia Gravis Does Not Require Igg1 Antibody to Musk.** *J Neuroimmunol.* 2016; 295:84-92.
49. Kurowski B, Wade S, Dexheimer J, Dyas J, Zhang N, Babcock L. **Feasibility and Potential Benefits of a Web-Based Intervention Delivered Acutely after Mild Traumatic Brain Injury in Adolescents: A Pilot Study.** *J Head Trauma Rehabil.* 2015.
50. Kurowski BG, Pomerantz WJ, Schaiper C, Ho M, Gittelman MA. **Impact of Preseason Concussion Education on Knowledge, Attitudes, and Behaviors of High School Athletes.** *J Trauma Acute Care Surg.* 2015; 79:S21-8.

51. Kurowski E, Shah S, Thomson J, Statile A, Iyer S, White C, Ambroggio L. **Improvement without Value Response.** *Pediatrics.* 2015; 136:E549.
52. Lustre BL, Dixon CA, Merianos AL, Gordon JS, Zhang B, Mahabee-Gittens EM. **Assessment of Tobacco Smoke Exposure in the Pediatric Emergency Department.** *Prev Med.* 2016; 85:42-6.
53. Mahabee-Gittens EM, Dexheimer JW, Khoury JC, Miller JA, Gordon JS. **Development and Testing of a Computerized Decision Support System to Facilitate Brief Tobacco Cessation Treatment in the Pediatric Emergency Department: Proposal and Protocol.** *JMIR Res Protoc.* 2016; 5:e64.
54. Mahabee-Gittens EM, Khoury JC, Ho M, Stone L, Gordon JS. **A Smoking Cessation Intervention for Low-Income Smokers in the Ed.** *Am J Emerg Med.* 2015; 33:1056-61.
55. McAneney C. **Pediatric Emergency Medicine Fellowship Programs.** *Pediatr Emerg Care.* 2016; 32:269-75.
56. McDonald EM, Gittelman MA, Rains CM, Hoffman BD, Zonfrillo MR. **Toward a Centralized Database for Child Safety Centers: Results of a Feasibility Pilot Study.** *J Trauma Acute Care Surg.* 2015; 79:S15-20.
57. Merianos A, Gittens O, Mahabee-Gittens E. **Depiction of Health Effects of Electronic Cigarettes on Youtube.** *J Subst Use.* 2016:1-6.
58. Mittiga M, Rinderknecht A, Kerrey B. **A Modern and Practical Review of Rapid-Sequence Intubation in Pediatric Emergencies.** *Clin Pediatr Emerg Med.* 2015; 16:172-85.
59. Mittiga M, Ruddy R. **Procedures.** In: K Shaw, R Bachur, eds. *Fleisher & Ludwig's Textbook of Pediatric Emergency Medicine.* Philadelphia, PA: Lippincott Williams & Wilkins; 2015.
60. Murtagh K, E, Schondelmeyer A, Brown C, Dandoy C, Hanke S, Tubbs C, HL. **A Practical Guide to Conducting Quality Improvement in the Health Care Setting.** *Curr Treat Options Pediatr.* 2015; 1:380-92.
61. Natale J, Joseph J, Rogers A, Tunik M, Monroe D, Kerrey B, Bonsu B, Cook L, Page K, Adelgais K. **Relationship of Physician-Identified Patient Race and Ethnicity to Use of Computed Tomography in Pediatric Blunt Torso Trauma.** *Acad Pediatr.* 2016; 23:584-90.
62. O'Connell K, Shaw K, Ruddy R, Mahajan P, Lichenstein R, Olsen C, Blumberg S, Chamberlain J. **Incident Reporting to Improve Patient Safety: The Effects of Process Variance on Pediatric Patient Safety in the Emergency Department.** *Pediatrics.* 2016; 137:291A-91A.
63. Overmann K, Florin T. **Nebulised Hypertonic Saline May Be Less Effective Than Previously Reported in Reducing Hospital Length of Stay and Admission Rate in Acute Bronchiolitis.** *Evid Based Med.* 2016.
64. Patterson M, Militello L, Bunger A, Taylor R, Wheeler D, Klein G, Geis G. **Leveraging the Critical Decision Method to Develop Simulation-Based Training for Early Recognition of Sepsis.** *J Cogn Eng Decis Mak.* 2016; 10:36-56.
65. Pestian J, Grupp-Phelan J, Cohen K, Meyers G, Richey L, Matykiewicz P, Sorter M. **A Controlled Trial Using Natural Language Processing to Examine the Language of Suicidal Adolescents in the Emergency Department.** *Suicide Life Threat Behav.* 2016; 46:154-59.
66. Pierce M, Magana J, Kaczor K, Lorenz D, Meyers G, Bennett B, Kanegaye J. **The Prevalence of Bruising among Infants in Pediatric Emergency Departments.** *Ann Emerg Med.* 2016; 67:1-8.
67. Pomerantz W, Weiss S. **Systemic Inflammatory Response Syndrome (Sirs) and Sepsis in Children: Definitions, Epidemiology, Clinical Manifestations, and Diagnosis.** Watham MA: UpToDate; 2015.
68. Postenrieder N, Reed J, Hesse E, Kahn J, Ding L, Gaydos C, Rompalo A, Widdice L. **Rapid Antigen Testing for Trichomoniasis in an Emergency Department.** *Pediatrics.* 2016; 137:e 20152072

69. Pruden C, McAneney C. **Neck Masses**. In: R Bachur, K Shaw, eds. *Fleisher & Ludwig's Textbook of Pediatric Emergency Medicine*. Philadelphia, PA: Lippincott Williams & Wilkins; 2015:296-302.
70. Reed J, Huppert J, Taylor R, Gillespie G, Alessandrini E, Kahn J. **The Impact of Post-Visit Emergency Department Follow-up on Sexually Transmitted Infection Related Return Visits**. *Ann Public Health Res*. 2015; 2:1-4.
71. Rhine T, Quatman-Yates C, Clark R. **A Longitudinal Examination of Postural Impairments in Children with Mild Traumatic Brain Injury: Implications for Acute Testing**. *J Head Trauma Rehabil*. 2015.
72. Rhine TD, Byczkowski TL, Clark RA, Babcock L. **Investigating the Feasibility and Utility of Bedside Balance Technology Acutely after Pediatric Concussion: A Pilot Study**. *Clin J Sport Med*. 2016; 26:221-5.
73. Riney L, Reed J, Pomerantz W, Kruger L, Brody A. **Clinical Problem Solving: Back to the Basics Reply**. *Ann Emerg Med*. 2016; 67:682-83.
74. Riney LC, Reed JL, Kruger LL, Brody AJ, Pomerantz WJ. **Menarche? A Case of Abdominal Pain and Vaginal Bleeding in a Preadolescent Girl**. *Ann Emerg Med*. 2015; 66:479-82.
75. Ruddy RM, Chamberlain JM, Mahajan PV, Funai T, O'Connell KJ, Blumberg S, Lichenstein R, Gramse HL, Shaw KN, Pediatric Emergency Care Applied Research Network. **Near Misses and Unsafe Conditions Reported in a Pediatric Emergency Research Network**. *BMJ Open*. 2015; 5:e007541.
76. Saddawi-Konefka D, Schumacher D, Baker K, Charnin J, Gollwitzer P. **Changing Physician Behavior with Implementation Intentions: Closing the Gap between Intentions and Actions**. *Acad Med*. 2016.
77. Scheller R, Johnson L, C. C, M, Lorts A. **Sudden Collapse of a Preschool-Aged Child on the Playground**. *Pediatr Emerg Care*. 2015:1-1.
78. Scheller RL, Depinet HE, Ho ML, Hornung RW, Reed JL. **Utility of Pediatric Appendicitis Score in Female Adolescent Patients**. *Acad Emerg Med*. 2016; 23:610-5.
79. Schneider K, Byczkowski T, Reed J. **Treatment Compliance among Asymptomatic Adolescents with Sexually Transmitted Infections**. *JAMA Pediatr*. 2015; 169:1065-66.
80. Schneider K, FitzGerald M, Byczkowski T, Reed J. **Screening for Asymptomatic Gonorrhea and Chlamydia in the Pediatric Emergency Department**. *Sex Transm Dis*. 2016; 43:209-15.
81. Schumacher D, Frintner M, Cull W. **Relationships between Program Size, Training Experience, and Career Intentions: Pediatrics Resident Reports from 2010 to 2014**. *Acad Pediatr*. 2016.
82. Schumacher D, Frohna J. **Patient Safety and Quality Improvement: A 'Cler' Time to Move Beyond Peripheral Participation**. *Med Educ Online*. 2016; 21:31993.
83. Schumacher DJ, Frintner MP, Winn A, Cull W. **Graduating Pediatrics Residents' Reports on the Impact of Fatigue over the Past Decade of Duty Hour Changes**. *Acad Pediatr*. 2015; 15:362-6.
84. Schwartz HP, Bigham MT, Schoettker PJ, Meyer K, Trautman MS, Insoft RM, American Academy of Pediatrics Section on Transport Medicine. **Quality Metrics in Neonatal and Pediatric Critical Care Transport: A National Delphi Project**. *Pediatr Crit Care Med*. 2015; 16:711-7.
85. Section on Transport Medicine, American Academy of Pediatrics. *Guidelines for Air and Ground Transport of Neonatal and Pediatric Patients; 4th Edition*. Elk Grove Village IL:American Academy of Pediatrics.
86. Sectish TC, Hay WW, Jr., Mahan JD, Mendoza FS, Spector ND, Stanton B, Szilagyi PG, Turner TL, Walker LR, Slaw K, Members of the Federation of Pediatric Organizations' Visioning Summit Working Groups Planning Committee. **Blueprint for Action: Visioning Summit on the Future of the Workforce in Pediatrics**. *Pediatrics*. 2015; 136:161-9.

87. Shah SS, Ambroggio L, Florin TA. **Biomarkers for Predicting Illness Severity in Children with Acute Lower Respiratory Tract Infections.** *J Pediatric Infect Dis Soc.* 2015; 4:189-91.
 88. Sobolewski B. **Emergency Pediatric Care.** In: M Corporation, ed. *Medstudy 7th Edition Pediatrics Review Core Curriculum.* Colorado Springs CO: Medstudy; 2015.
 89. Sobolewski B. **Social Media, Technology Create New Frontier in Medical Education.** *AAP News.* 2015; 36:1-1.
 90. Sobolewski B, Kerrey BT, Geis GL, Bria CL, Mittiga MR, Gonzalez del Rey JA. **The April Effect: A Multimedia Orientation Approach to Improve Rotation Transitions During Pediatric Residency.** *Acad Pediatr.* 2016; 16:220-3.
 91. Speer M, Chambers P. **Ethics.** In: R Insoft, H Schwartz, eds. *Guidelines for Air and Ground Transport of Neonatal and Pediatric Patients.* Elk Grove Village, IL: American Academy Of Pediatrics; 2015:303-17.
 92. Statile AM, Unaka N, Thomson JE, Sucharew H, del Rey JG, White CM. **Implementation of an Innovative Pediatric Hospital Medicine Education Series.** *Hosp Pediatr.* 2016; 6:151-6.
 93. Stevenson M, Ruddy R. **Allergic Emergencies.** In: R Bachur, K Shaw, eds. *Fleisher & Ludwig's Textbook of Pediatric Emergency Medicine.* Philadelphia, PA: Lippincott Williams & Wilkins; 2015:616-25.
 94. Thompson R, Kaczor K, Lorenz D, Bennett B, Meyers G, Pierce M. **Is the Use of Physical Discipline Associated with Aggressive Behaviors in Young Children?** *Acad Pediatr.* 2015.
 95. Thornton S, Strait R. **Head-to-Head Comparison of Protocol Modifications for the Generation of Collagen-Induced Arthritis in a Specific-Pathogen Free Facility Using Db_a/1 Mice.** *Biotechniques.* 2016; 60:119-28.
 96. Vaughn L, DeJonckheere M, Warrick S. **Cultural Humility in Pediatric Practice.** In: D Kamat, P Fischer, eds. *Textbook of Pediatric Global Health.* Elk Grove Village, IL: American Academy Of Pediatrics; 2015:79-79.
 97. Vaughn L, Jacquez F, Marschner D, McLinden D. **See What We Say: Using Concept Mapping to Visualize Latino Immigrant's Strategies for Health Interventions.** *Int J Public Health.* 2016:1-9.
 98. Vaughn L, McLinden D. **Concept Mapping.** In: L Jason, D Glenwick, eds. *Handbook of Methodological Approaches to Community-Based Research: Qualitative, Quantitative, and Mixed Methods.* New York: Oxford University Press; 2016:305-14.
 99. Vaughn LM, DeJonckheere M, Pratap JN. **Putting a Face and Context on Pediatric Surgery Cancellations: The Development of Parent Personas to Guide Equitable Surgical Care.** *J Child Health Care.* 2016.
 100. Vukovic AA, Frey M, Byczkowski T, Taylor R, Kerrey BT. **Video-Based Assessment of Peripheral Intravenous Catheter Insertion in the Resuscitation Area of a Pediatric Emergency Department.** *Acad Emerg Med.* 2016; 23:637-44.
 101. Wang G, Levitan R, Wiegand T, Lowry J, Schult R, Yin S, Toxicology investigators Consortium. **Extracorporeal Membrane Oxygenation (Ecmo) for Severe Toxicological Exposures: Review of the Toxicology Investigators Consortium (Toxic).** *J Med Toxicol.* 2016; 12:95-99.
 102. Weiss S, Pomerantz W. **Septic Shock: Ongoing Management after Resuscitation in Children.** Watham MA: UpToDate; 2016.
 103. Weiss S, Pomerantz W. **Septic Shock: Rapid Recognition and Initial Resuscitation in Children.** Watham MA: UpToDate; 2016.
 104. Xiao C, Biagini Myers JM, Ji H, Metz K, Martin LJ, Lindsey M, He H, Powers R, Ulm A, Ruff B, Ericksen MB, Somineni HK, Simmons J, Strait RT, Kercksmar CM, Khurana Hershey GK. **Vanin-1 Expression and Methylation Discriminate Pediatric Asthma Corticosteroid Treatment Response.** *J Allergy Clin Immunol.* 2015; 136:923-31 e3.
 105. Zaveri PP, Hsu D, Mittiga MR, Wolff M, Reynolds S, Kim I, Allen C, McAneney CM, Kou M. **Essentials of Pediatric Emergency Medicine Fellowship: Part 1: An Overview.** *Pediatr Emerg Care.* 2016; 32:337-9.
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Grants, Contracts, and Industry Agreements

Annual Grant Award Dollars

| Investigator | Title | Sponsor | ID | Dates | Amount |
|-------------------------------|--|---|----------------------|-------------------------|-----------|
| Evaline A Alessandrini, MD | Improving the Quality of Pediatric Emergency Care Using an Electronic Medical Record Registry and Clinician Feedback | Agcy for Healthcare Research and Quality (Northwestern University Medical School) | R01 HS020270 | 11/23/2013 - 9/29/2016 | \$49,046 |
| Lynn Babcock, MD | Established Status Epilepticus Treatment Trial (ESETT) | National Institutes of Health (University of Virginia) | U01 NS088034 | 9/30/2014 - 6/30/2019 | \$50,000 |
| Berkeley L Bennett, MD | Clinical Decision Rules to Discriminate Bruising Caused by Physical Child Abuse | National Institutes of Health (Lurie Children's Hospital of Chicago) | R01 HD060997 | 5/30/2011 - 3/31/2016 | \$73,968 |
| Seema Bhatt, MD | HIV Testing in Ohio Emergency Departments | Ohio Department of Health | 03130012HT0314 | 1/1/2014 - 12/31/2016 | \$50,000 |
| Seema Bhatt, MD | Impact of Emergency Department Probiotic Treatment of Pediatric Gastroenteritis | National Institutes of Health (Washington University) | R01 HD071915 | 12/10/2013 - 11/30/2018 | \$12,200 |
| Seema Bhatt, MD | Arginine Therapy for the Treatment of Pain in Children with Sickle Cell Disease | National Institutes of Health (Emory University) | R34 HL122557 | 8/1/2015 - 2/1/2016 | \$780 |
| Michelle Eckerle, MD | Metabolite Profiles in Viral Respiratory Illness among Malawian Children | Thrasher Research Fund | THRASHER - Eckerle,M | 8/1/2015 - 7/31/2016 | \$26,739 |
| MSCE,Todd A Florin, MD | Procalcitonin and Risk Stratification in Pediatric Pneumonia | The Gerber Foundation | Gerber - Florin,Todd | 1/1/2014 - 12/31/2016 | \$109,379 |
| MSCE,Todd A Florin, MD | Biomarkers and Risk Stratification in Pediatric Community-Acquired Pneumonia | National Institutes of Health | K23 AI121325 | 1/15/2016 - 12/31/2019 | \$175,499 |
| Michael A Gittelman, MD | Healthy Tomorrows Partnership For Children Program | Health Resources & Services Admin (American Academy of Pediatrics) | AAP - Gittelman,Mich | 7/1/2013 - 6/30/2018 | \$15,000 |
| Jacqueline M Grupp-Phelan, MD | Teen Alcohol Screening in the Pediatric Emergency Care Applied Research Network | National Institutes of Health (Rhode Island Hospital) | R01 AA021900 | 9/5/2012 - 5/31/2017 | \$4,854 |

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|----------------------------------|--|--|----------------------|------------------------|-----------|
| Jacqueline M Grupp-Phelan, MD | Emergency Department Screen for Teens at Risk for Suicide (ED-STARS) | National Institutes of Health (University of Michigan) | U01 MH104311 | 9/1/2014 - 7/31/2017 | \$213,395 |
| Jacqueline M Grupp-Phelan, MD | Ohio Valley Node-Network | National Institutes of Health (University of Cincinnati) | UG1 DA013732 | 9/1/2015 - 5/31/2020 | \$13,404 |
| E Melinda Mahabee-Gittens, MD-MS | An Intervention to Reduce SHS Exposure among Pediatric Emergency Patients | National Institutes of Health | R01 HD083354 | 8/1/2015 - 6/30/2020 | \$656,798 |
| E Melinda Mahabee-Gittens, MD-MS | Pediatric Emergency Department Decision Support System to Reduce Secondhand Smoke | National Institutes of Health | R21 CA184337 | 12/3/2014 - 11/30/2016 | \$223,424 |
| Jennifer Reed, MD | Decreasing Teen STI Prevalence through Universal emergency Department Screening | National Institutes of Health | K23 HD075751 | 5/1/2014 - 4/30/2018 | \$131,488 |
| Tara Devi Rhine, MD | Novel Predictors of Recovery from Early Brain Injury | National Institutes of Health (University of Cincinnati) | KL2 TR001426 | 8/14/2015 - 3/31/2017 | \$162,000 |
| Richard M Ruddy, MD | RNA Biosignatures: A Paradigm Change for the Management of Young Febrile Infants | National Institutes of Health (Wayne State University) | R01 HD085233 | 8/21/2015 - 4/30/2020 | \$66,797 |
| Richard M Ruddy, MD | EMS for Children: Pediatric Emergency Care Applied Research Network: (PECARN) Hospitals of the Midwest Emergency Research Node (HOMERUN) and EMS Affiliate | Health Resources & Services Admin | U03MC22684 | 9/1/2015 - 8/31/2019 | \$649,982 |
| Charles J Schubert, MD | City of Cincinnati Immunization Project | City of Cincinnati | 45X0429 | 1/1/2012 - 12/31/2016 | \$41,488 |
| Daniel J Schumacher, MD | American Board of Medical Specialties Research and Education Foundation Visiting Scholars Program Grant | The Amer Bd of Med Spec Res & Educ Fdn | ABMS-REF - SCHUMACHE | 7/1/2015 - 12/31/2016 | \$7,333 |
| Hamilton Parker Schwartz, MD | Pilot Study to Develop a Pediatric Cervical Spine Injury Risk Assessment Tool | National Institutes of Health (Nationwide Children's Hospital) | R21 HD076108 | 9/3/2014 - 8/31/2016 | \$58,584 |
| Richard Thomas Strait, MD | Infant Specific-IgE, | National Institutes of Health | R01 AI114552 | 12/1/2014 - | \$8,163 |

Rhinovirus-C Bronchiolitis, (Massachusetts General
and Incident Asthma in Hospital) 11/30/2019
MARC-35

Richard Thomas Strait, MD Prospective Cohort Study of National Institutes of Health U01 AI087881 9/1/2011 - \$3,689
Severe Bronchiolitis and (Massachusetts General 8/31/2016
Risk of Recurrent Wheezing Hospital)

Total Annual Grant Award Dollars \$2,804,011