

# Research in Patient Services

### RESEARCH AND TRAINING DETAILS



[Click to view members](#)

Faculty	12
Joint Appointment Faculty	6
Research Fellows	7
Research Students	37
Support Personnel	34
Direct Annual Grant Support	\$645,039
Peer Reviewed Publications	83

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## Research Highlights

**Rita Pickler, PhD, RN, PNP-BC, FAAN**

In April of 2015, Dr. Pickler was appointed to the [Science Committee](#) with [The Council for the Advancement of Nursing Science](#).

**Ian M. Windmill, PhD**

In March 2015, [Dr. Windmill](#) was named president-elect of the [American Academy of Audiology](#). He also serves on the

steering and executive committee of the [Communication Sciences Research Center](#).

## David Moore, PhD

In March 2015, [Dr. Moore](#) won the editor's award from [Ear and Hearing](#). He is also a member of the [American Auditory Society](#) and the [Communications Sciences Research Center](#).

In December 2014, Dr. Moore was awarded the 2015 [Career Award for Hearing Balance](#) from the American Auditory Society.

## Catherine Quatman-Yates, PT, DPT, PhD

In February 2015, Dr. [Quatman-Yates](#) was awarded the 2014 [Excellence in Research Award](#), Sports Physical Therapy Section of the [American Physical Therapy Association](#).

## Sandra Staveski, PhD, RN, APRN

In February, [Dr. Staveski](#) won the 10th annual Nurse Scientist Award at the Cardiology 2015 conference.

## Heather Tubbs Cooley, PhD, RN

[Dr. Tubbs Cooley](#) published a paper in the *Journal of Advanced Nursing* in 2015 entitled, "[A Descriptive Study of Nurse-Reported Missed Care in Neonatal Intensive Care Units](#)".

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## Significant Publications

[Tubbs-Cooley HL](#), [Pickler RH](#), Younger JB, Mark BA. [A Descriptive Study of Nurse-Reported Missed Care in Neonatal Intensive Care Units](#). *J Adv Nurs*. 2015 Apr;71(4):813-24.

Missed nursing care is an important phenomenon because preventable adverse patient outcomes are theoretically and empirically linked to nursing care quality, yet there is little information about the frequency and nature of missed nursing care in pediatric settings such as the neonatal intensive care unit. The researchers found that nurses most often reported missing specific patient care activities 'occasionally' or 'rarely'; very few reported missing any patient care activity 'frequently' on their last shift worked and that interruptions were the most significant reason for missed care. Additional research is needed to understand whether missed nursing care in neonatal intensive care units contributes to adverse infant outcomes and if so, the system and nurse characteristics that predict its occurrence.

[Horowitz-Kraus T](#), Vannest JJ, Kadis D, Cicchino N, [Wang YY](#), [Holland SK](#). [Reading acceleration training changes brain circuitry in children with reading difficulties](#). *Brain Behav*. 2014;4(6):886-902.

This paper is the first to reveal the participation of neural circuits related to executive functions in reading and reading remediation in typical developing children and dyslexic readers. Its importance is by the implications of including an executive functions focused remediation for children with reading difficulties. It is also the pioneer paper, for four other publications focusing on the role of executive functions in reading in children with reading difficulties and the neural circuits supporting these abilities.

[Elsayed A](#), [Hunter LL](#), Keefe DH, Feeney MP, Brown DK, Meinzen-Derr JK, Baroch K, Sullivan-Mahoney M, Francis K, Schaid LG. [Air and Bone Conduction Tone-burst Auditory Brainstem Thresholds using an Adaptive Processing Approach in Non-sedated Normal Hearing Newborns](#). *Ear Hearing*. 2015 Jul-Aug;36(4):471-81.

Elsayed et al. 2015: Infants who fail newborn hearing screening may have permanent or temporary hearing loss, and it can be hard to diagnose these types of hearing loss in newborns. To avoid the risk of sedation, a diagnostic test is needed that is able to provide accurate results in newborns who cycle between awake, lightly asleep, and restless states. Our study showed that with new technology called "Kalman weighting" to reduce muscle artifacts, we were able

to obtain recordings across these sleep states, and this is the first normative study using this approach. This technology is now being used in the Audiology clinics at Cincinnati Children's.

**Currier RL**, Payne DC, Staat MA, Selvarangan R, Shirley SH, Halasa N, Boom JA, Englund JA, Szilagyi PG, Harrison CJ, Klein EJ, Weinberg GA, Wikswa ME, Parashar U, Vinje J, Morrow AL. **Innate Susceptibility to Norovirus Infections Influenced by FUT2 Genotype in a United States Pediatric Population.** *Clin Infect Dis.* 2015 Jun 1;60(11):1631-8.

This paper is significant in demonstrating a major link between genetics, infectious disease, and a mechanism by which breastfeeding can protect infants. First-authored by Dr. Rebecca Currier, an MD/PhD student, this paper represents a collaboration between Cincinnati Children's and the Centers for Disease Control and Prevention. The study shows that major strains of norovirus, which cause about 20% of acute diarrhea in the United States, are significantly increased in children who are genetically positive for the fucosyltransferase 2 (FUT2) gene. These noroviruses cause diarrhea by binding to gut surface carbohydrates made by the FUT2 gene enzyme. Mother's milk protects infants through similar FUT2-synthesized carbohydrates that bind noroviruses and thereby prevent infection.

**Paterno MV**, Rauh MJ, Schmitt LC, Ford KR, Hewett TE. **Incidence of Second ACL Injuries 2 Years After Primary ACL Reconstruction and Return to Sport.** *Am J Sports Med.* 2014 Jul;42(7):1567-73.

The incidence of repeat injury after ACL reconstruction is much higher than once thought in young, active patients. These data highlights the concern that our current outcome after ACL reconstruction is sub-optimal with a high re-injury rate (nearly 30%) in as little as two years after return to sports. With this knowledge, it is imperative that we challenge the current paradigm of management after ACL injuries and seek out a more effective system of care for these patients. Future work focused on the design and implementation of novel interventions as well as more efficacious systems of care for this population to reduce second injury risk and improve patient outcome after ACL reconstruction.

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## Division Publications

1. Amitay S, Moore DR, Molloy K, Halliday LF. **Feedback valence affects auditory perceptual learning independently of feedback probability.** *PLoS One.* 2015; 10:e0126412.
2. Beck G, Puthoff D, Gillespie GL. **Helping leaders emerge from the bedside.** *Nurs Manage.* 2015; 46:34-9.
3. Brady PW, Zix J, Brill R, Wheeler DS, Griffith K, Giaccone MJ, Dressman K, Kotagal U, Muething S, Tegtmeyer K. **Developing and evaluating the success of a family activated medical emergency team: a quality improvement report.** *BMJ Qual Saf.* 2015; 24:203-11.
4. Brown LF, Pickler RH, Wetzel PA. **Maternal attention and preterm infant feeding.** *J Spec Pediatr Nurs.* 2014; 19:257-65.
5. Burkett KW, Morris EJ. **Enabling trust in qualitative research with culturally diverse participants.** *J Pediatr Health Care.* 2015; 29:108-12.
6. Casper T, Arbour M. **Evidence-based nurse-driven interventions for the care of newborns with neonatal abstinence syndrome.** *Adv Neonatal Care.* 2014; 14:376-80.
7. Chen J, Davis KG, Daraiseh NM, Pan W, Davis LS. **Fatigue and recovery in 12-hour dayshift hospital nurses.** *J Nurs Manag.* 2014; 22:593-603.
8. Clagg S, Paterno MV, Hewett TE, Schmitt LC. **Performance on the modified star excursion balance test at the time of return to sport following anterior cruciate ligament reconstruction.** *J Orthop Sports Phys Ther.* 2015;

45:444-52.

9. Collaborative IPPP. **Predatory publishing**. *J Midwifery Womens Health*. 2014; 59:569-71.
10. Currier RL, Payne DC, Staat MA, Selvarangan R, Shirley SH, Halasa N, Boom JA, Englund JA, Szilagyi PG, Harrison CJ, Klein EJ, Weinberg GA, Wikswa ME, Parashar U, Vinje J, Morrow AL. **Innate Susceptibility to Norovirus Infections Influenced by FUT2 Genotype in a United States Pediatric Population**. *Clin Infect Dis*. 2015; 60:1631-8.
11. Davis RH, Godshall BJ, Seffrood E, Marcus M, LaSalle BA, Wong B, Schroth MK, Swoboda KJ. **Nutritional practices at a glance: spinal muscular atrophy type I nutrition survey findings**. *J Child Neurol*. 2014; 29:1467-72.
12. Dawes P, Cruickshanks KJ, Moore DR, Edmondson-Jones M, McCormack A, Fortnum H, Munro KJ. **Cigarette smoking, passive smoking, alcohol consumption, and hearing loss**. *J Assoc Res Otolaryngol*. 2014; 15:663-74.
13. Dawes P, Dickinson C, Emsley R, Bishop PN, Cruickshanks KJ, Edmondson-Jones M, McCormack A, Fortnum H, Moore DR, Norman P, Munro K. **Vision impairment and dual sensory problems in middle age**. *Ophthalmic Physiol Opt*. 2014; 34:479-88.
14. Dawes P, Emsley R, Cruickshanks KJ, Moore DR, Fortnum H, Edmondson-Jones M, McCormack A, Munro KJ. **Hearing loss and cognition: the role of hearing AIDS, social isolation and depression**. *PLoS One*. 2015; 10:e0119616.
15. deCastro MVA, Eades LJ, Rineair SA, Schoettker PJ. **Proactive Planning for Vascular Access Therapy: One Hospital's Plan for Success**. *J Assoc Vasc Access*. 2014; 19:238-243.
16. Deliyski DD, Powell MEG, Zacharias SRC, Gerlach TT, de Alarcon A. **Experimental investigation on minimum frame rate requirements of high-speed videoendoscopy for clinical voice assessment**. *Biomedical Signal Processing and Control*. 2015; 17:21-28.
17. Dorich J, Shotwell C. **Orthotics and Casting**. In: JM Abzug, S Kozin, DA Zlotolow, eds. *The Pediatric Upper Extremity*. New York: Springer Science + Business Media; 2014:1-34.
18. Ferguson MA, Henshaw H, Clark DP, Moore DR. **Benefits of phoneme discrimination training in a randomized controlled trial of 50- to 74-year-olds with mild hearing loss**. *Ear Hear*. 2014; 35:e110-21.
19. Fischer K, Hogan V, Jager A, von Allmen D. **Efficacy and utility of phone call follow-up after pediatric general surgery versus traditional clinic follow-up**. *Perm J*. 2015; 19:11-4.
20. Friend M, Morrison A. **Interventions to Improve Asthma Management of the School-Age Child**. *Clin Pediatr (Phila)*. 2015; 54:534-42.
21. Giambra BK, Stiffler D, Broome ME. **An integrative review of communication between parents and nurses of hospitalized technology-dependent children**. *Worldviews Evid Based Nurs*. 2014; 11:369-75.
22. Goyal NK, Folger AT, Hall ES, Ammerman RT, Van Ginkel JB, Pickler RS. **Effects of home visiting and maternal mental health on use of the emergency department among late preterm infants**. *J Obstet Gynecol Neonatal Nurs*. 2015; 44:135-44.
23. Guilfoyle SM, Monahan S, Wesolowski C, Modi AC. **Depression screening in pediatric epilepsy: evidence for the benefit of a behavioral medicine service in early detection**. *Epilepsy Behav*. 2015; 44:5-10.
24. Han JH, Dimitrijevic A. **Acoustic change responses to amplitude modulation: a method to quantify cortical temporal processing and hemispheric asymmetry**. *Front Neurosci*. 2015; 9:38.

25. Hill AK, Lind MA, Tucker D, Nelly P, Daraiseh N. **Measurable results: Reducing staff injuries on a specialty psychiatric unit for patients with developmental disabilities.** *Work*. 2015; 51.
26. Horowitz-Kraus T. **Differential effect of cognitive training on executive functions and reading abilities in children with ADHD and in children with ADHD comorbid with reading difficulties.** *J Atten Disord*. 2015; 19:515-26.
27. Horowitz-Kraus T, Cicchino N, Amiel M, Holland SK, Breznitz Z. **Reading improvement in English- and Hebrew-speaking children with reading difficulties after reading acceleration training.** *Ann Dyslexia*. 2014; 64:183-201.
28. Horowitz-Kraus T, Grainger M, DiFrancesco M, Vannest J, Holland SK, Consortium CA. **Right is not always wrong: DTI and fMRI evidence for the reliance of reading comprehension on language-comprehension networks in the right hemisphere.** *Brain Imaging Behav*. 2015; 9:19-31.
29. Horowitz-Kraus T, Holland SK. **Greater functional connectivity between reading and error-detection regions following training with the reading acceleration program in children with reading difficulties.** *Ann Dyslexia*. 2015; 65:1-23.
30. Horowitz-Kraus T, Vannest JJ, Kadis D, Cicchino N, Wang YY, Holland SK. **Reading acceleration training changes brain circuitry in children with reading difficulties.** *Brain Behav*. 2014; 4:886-902.
31. Horowitz-Kraus T, Wang Y, Plante E, Holland SK. **Involvement of the right hemisphere in reading comprehension: a DTI study.** *Brain Res*. 2014; 1582:34-44.
32. Hoying C, Allen SR. **Interprofessional Shared Governance in Healthcare.** In: D Swihart, RG Hess, eds. *Shared Governance*. Danvers, Maryland: HCPro; 2014:87-104.
33. Inge TH, Boyce TW, Lee M, Kollar L, Jenkins TM, Brandt ML, Helmtrath M, Xanthakos SA, Zeller MH, Harmon CM, Courcoulas A, Michalsky MP. **Access to care for adolescents seeking weight loss surgery.** *Obesity (Silver Spring)*. 2014; 22:2593-7.
34. International Academy of Nursing Editors "Predatory Publishing Practices C. **Predatory publishers: what the nursing community needs to know.** *J Perianesth Nurs*. 2015; 30:87-90.
35. Jamerson PA, Graf E, Messmer PR, Fields HW, Barton S, Berger A, Daraiseh NM, Fix M, Huth M, Latta L, Smith AB, Lunbeck M. **Inpatient falls in freestanding children's hospitals.** *Pediatr Nurs*. 2014; 40:127-35.
36. Jeffery AD, Christen M, Moore L. **Beyond a piece of paper: learning to hire with synergy.** *Nurs Manage*. 2015; 46:52-4.
37. Jeffery AD, Mutsch KS, Knapp L. **Knowledge and recognition of SIRS and sepsis among pediatric nurses.** *Pediatr Nurs*. 2014; 40:271-8.
38. Jeffery AD, Pickler RH. **Barriers to nurses' adherence to central venous catheter guidelines.** *J Nurs Adm*. 2014; 44:429-35.
39. Jones PR, Moore DR, Amitay S. **Development of auditory selective attention: why children struggle to hear in noisy environments.** *Dev Psychol*. 2015; 51:353-69.
40. Jones PR, Moore DR, Shub DE, Amitay S. **The Role of Response Bias in Perceptual Learning.** *J Exp Psychol Learn Mem Cogn*. 2015; .
41. Kearney MH, Collaborative IPPP. **Predatory publishing: what authors need to know.** *Res Nurs Health*. 2015; 38:1-3.

42. Kramer C, Jeffery A. **Pancreatitis in children**. *Crit Care Nurse*. 2014; 34:43-52; quiz 53.
43. Long JT, Kovacs CJ, Hoobler AJ, E.E.K. F, Cunningham BE, Caldwell CM. **Integrating Telehealth: Experiences in Incorporating Telehealth Tools and Principles Into a Pediatric Therapeutic Environment..** *OT Practice*. 2015; 7.
44. Louden E, Allgier A, Overton M, Welge J, Mehlman CT. **The impact of pediatric brachial plexus injury on families.** *J Hand Surg Am*. 2015; 40:1190-5.
45. Lowe A, Sharp P, Thelen C, Warnken B. **Trauma-Induced Conditions**. In: J Case-Smith, JC O'Brien, eds. *Occupational Therapy for Children and Adolescents*. St. Louis, MO: Elsevier Inc; 2015:839-856.
46. Maslin MR, Lloyd SK, Rutherford S, Freeman S, King A, Moore DR, Munro KJ. **Rapid Increase in Neural Conduction Time in the Adult Human Auditory Brainstem Following Sudden Unilateral Deafness.** *J Assoc Res Otolaryngol*. 2015; .
47. Maykut JN, Taylor-Haas JA, Paterno MV, DiCesare CA, Ford KR. **Concurrent validity and reliability of 2d kinematic analysis of frontal plane motion during running.** *Int J Sports Phys Ther*. 2015; 10:136-46.
48. McCormack A, Edmondson-Jones M, Mellor D, Dawes P, Munro KJ, Moore DR, Fortnum H. **Association of dietary factors with presence and severity of tinnitus in a middle-aged UK population.** *PLoS One*. 2014; 9:e114711.
49. McGarrigle R, Munro KJ, Dawes P, Stewart AJ, Moore DR, Barry JG, Amitay S. **Listening effort and fatigue: what exactly are we measuring? A British Society of Audiology Cognition in Hearing Special Interest Group 'white paper'.** *Int J Audiol*. 2014; 53:433-40.
50. McGrail A, Kelchner L. **Barriers to oral fluid intake: beyond thickened liquids.** *J Neurosci Nurs*. 2015; 47:58-63.
51. McHenry BD, Exten EL, Long J, Law B, Marks RM, Harris G. **Sagittal subtalar and talocrural joint assessment with weight-bearing fluoroscopy during barefoot ambulation.** *Foot Ankle Int*. 2015; 36:430-5.
52. Mentrikoski JM, Duncan CL, Melanson A, Louden E, Allgier A, Michaud L, Rinaldi R. **Factors related to the psychosocial functioning of youth with neonatal brachial plexus injuries.** *J Pediatr Psychol*. 2015; 40:285-96.
53. Mercurio P, Shaffer Ellis A, Schoettker PJ, Stone R, Lenk MA, Ryckman FC. **Using improvement science methods to increase accuracy of surgical consents.** *AORN J*. 2014; 100:42-53.
54. Moore DR. **Sources of pathology underlying listening disorders in children.** *Int J Psychophysiol*. 2015; 95:125-34.
55. Moore DR, Edmondson-Jones M, Dawes P, Fortnum H, McCormack A, Pierzycki RH, Munro KJ. **Relation between speech-in-noise threshold, hearing loss and cognition from 40-69 years of age.** *PLoS One*. 2014; 9:e107720.
56. Moore DR, Ferguson MA. **It is neither necessary nor desirable to test for abnormalities in other modalities when diagnosing auditory processing disorder (APD).** *J Am Acad Audiol*. 2014; 25:697-8.
57. Myer GD, Kushner AM, Brent JL, Schoenfeld BJ, Hugentobler J, Lloyd RS, Vermeil A, Chu DA, Harbin J, McGill SM. **The back squat: A proposed assessment of functional deficits and technical factors that limit performance.** *Strength Cond J*. 2014; 36:4-27.
58. Nedelec B, Carter A, Forbes L, Hsu SC, McMahon M, Parry I, Ryan CM, Serghiou MA, Schneider JC, Sharp PA, de Oliveira A, Boruff J. **Practice guidelines for the application of nonsilicone or silicone gels and gel sheets after burn injury.** *J Burn Care Res*. 2015; 36:345-74.
59. Nuttall HE, Moore DR, Barry JG, Krumbholz K, de Boer J. **The influence of cochlear spectral processing on the timing and amplitude of the speech-evoked auditory brain stem response.** *J Neurophysiol*. 2015; 113:3683-91.

60. O'Quinn LP, Giambra BK. **Evidence of improved quality of life with pediatric palliative care.** *Pediatr Nurs.* 2014; 40:284-8, 296.
61. Paterno MV, Rauh MJ, Schmitt LC, Ford KR, Hewett TE. **Incidence of Second ACL Injuries 2 Years After Primary ACL Reconstruction and Return to Sport.** *Am J Sports Med.* 2014; 42:1567-1573.
62. Pickler RH, Reyna BA, Wetzel PA, Lewis M. **Effect of four approaches to oral feeding progression on clinical outcomes in preterm infants.** *Nurs Res Pract.* 2015; 2015:716828.
63. Pickler RH, Wetzel PA, Meinzen-Derr J, Tubbs-Cooley HL, Moore M. **Patterned feeding experience for preterm infants: study protocol for a randomized controlled trial.** *Trials.* 2015; 16:255.
64. Poole Wilson T, Davis KG, Kotowski SE, Daraiseh N. **Quantification of Patient and Equipment Handling for Nurses through Direct Observation and Subjective Perceptions.** *Advances in Nursing.* 2015; 2015:1-7.
65. Quatman-Yates C, Hugentobler J, Ammon R, Mwase N, Kurowski B, Myer GD. **The utility of the balance error scoring system for mild brain injury assessments in children and adolescents.** *Phys Sportsmed.* 2014; 42:32-8.
66. Ruff J, Wang TL, Quatman-Yates CC, Phieffer LS, Quatman CE. **Commercially available gaming systems as clinical assessment tools to improve value in the orthopaedic setting: a systematic review.** *Injury.* 2015; 46:178-83.
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69. Sidell D, Hunter LL, Lin L, Arjmand E. **Risk Factors for Preoperative and Postoperative Hearing Loss in Children Undergoing Pressure Equalization Tube Placement.** *Otolaryngol Head Neck Surg.* 2014; 150:1048-1055.
70. Sidell DR, Zacharias S, Balakrishnan K, Rutter MJ, de Alarcon A. **Surgical management of posterior glottic diastasis in children.** *Ann Otol Rhinol Laryngol.* 2015; 124:72-8.
71. Sroka MC, Vannest J, Maloney TC, Horowitz-Kraus T, Byars AW, Holland SK, Consortium CA. **Relationship between receptive vocabulary and the neural substrates for story processing in preschoolers.** *Brain Imaging Behav.* 2015; 9:43-55.
72. Staab JH, Klayman GJ, Lin L. **Assessing pediatric patient's risk of distress during health-care encounters: The psychometric properties of the Psychosocial Risk Assessment in Pediatrics.** *J Child Health Care.* 2014; 18:378-87.
73. Staveski SL, Zhelva B, Paul R, Conway R, Carlson A, Soma G, Kools S, Franck LS. **Pediatric cardiac surgery Parent Education Discharge Instruction (PEDI) program: a pilot study.** *World J Pediatr Congenit Heart Surg.* 2015; 6:18-25.
74. Stevens EE, Gazza E, Pickler R. **Parental experience learning to feed their preterm infants.** *Adv Neonatal Care.* 2014; 14:354-61.
75. Strunk JA, Pickler R, McCain NL, Ameringer S, Myers BJ. **Managing the health care needs of adolescents with autism spectrum disorder: the parents' experience.** *Fam Syst Health.* 2014; 32:328-37.

76. Taylor-Haas JA, Hugentobler JA, DiCesare CA, Hickey Lucas KC, Bates NA, Myer GD, Ford KR. **Reduced hip strength is associated with increased hip motion during running in young adult and adolescent male long-distance runners.** *Int J Sports Phys Ther.* 2014; 9:456-67.
  77. Tubbs-Cooley HL, Pickler RH, Mark BA, Carle AC. **A research protocol for testing relationships between nurse workload, missed nursing care and neonatal outcomes: the neonatal nursing care quality study.** *J Adv Nurs.* 2015; 71:632-41.
  78. Tubbs-Cooley HL, Pickler RH, Meinzen-Derr JK. **Missed oral feeding opportunities and preterm infants' time to achieve full oral feedings and neonatal intensive care unit discharge.** *Am J Perinatol.* 2015; 32:1-8.
  79. Tubbs-Cooley HL, Pickler RH, Younger JB, Mark BA. **A descriptive study of nurse-reported missed care in neonatal intensive care units.** *J Adv Nurs.* 2015; 71:813-24.
  80. Visscher MO, Lacina L, Casper T, Dixon M, Harmeyer J, Haberman B, Alberts J, Simakajornboon N. **Conformational positioning improves sleep in premature infants with feeding difficulties.** *J Pediatr.* 2015; 166:44-8.
  81. Vlaming MS, MacKinnon RC, Jansen M, Moore DR. **Automated screening for high-frequency hearing loss.** *Ear Hear.* 2014; 35:667-79.
  82. Wieman RA. **Nutrition Management of Pediatric Patients Undergoing Liver Transplantation or Intestinal Transplantation.** In: P Goday, N Mehta, eds. *Pediatric Critical Care Nutrition.* New York, New York: McGraw-Hill Education/Medical; 2015:175-186.
  83. Wieman RA, Kocoshis SA, Goldschmidt ML. **Hepatic Disease.** In: MR Corkins, ed. *A.S.P.E.N. Pediatric Nutrition Support Core Curriculum.* Silver Spring, MD: American Society for Parenteral and Enteral Nutrition; 2015:411-426.
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## Faculty, Staff, and Trainees

### Faculty Members

**Scott Holland, PhD**, Professor

**Leadership** Director - Research in Patient Services

**Research Interests** Advanced neuroimaging applications of MRI in pediatrics

**Nancy Daraiseh, PhD**, Assistant Professor

**Research Interests** Occupational health and safety; human factors; patient safety; health outcomes

**Dimitar Deliyiski, PhD**, Associate Professor

**Leadership** Associate Director

**Research Interests** Voice and vocal cord research related to otolaryngology surgery

**Andrew Dimitrijevic, PhD**, Assistant Professor

**Research Interests** Electroencephalography related to cochlear implant patients

**Lisa Hunter, PhD, FAAA**, Associate Professor

**Leadership** Scientific Director Pediatric Audiology

**Research Interests** Middle ear physiology; newborn hearing screening; childhood hearing loss diagnosis

**Ann Kummer, PhD**, Professor

**Leadership** PhD, CCC-SLP, ASHA-F

**Research Interests** Speech and resonance disorders secondary to cleft palate; craniofacial and orofacial



anomalies; velopharyngeal dysfunction

**David Moore, PhD**, Professor

**Leadership** Director - Communication Sciences Research Center

**Research Interests** Psychoacoustic research and how it affects hearing

**Rita Pickler, PhD, RN, PNP-BC, FAAN**, Professor

**Leadership** Scientific Director in Nursing

**Research Interests** Preterm infant care; prematurity prevention; transition to home; biobehavioral research

**Heather Tubbs-Cooley, PhD, RN**, Assistant Professor

**Research Interests** Outcomes research; health services research; improvement and implementation science; nursing workforce research

**Sandra Staveski, PhD, RN, APRN, CPNP-AC**, Assistant Professor

**Research Interests** Pediatric cardiac surgery, cardiovascular nursing care; preventable harm

**Karen Harpster, PhD, OTR/L**, Assistant Professor

**Research Interests** Intervention research to improve functional outcomes for children with neurodevelopment disabilities

**Jennifer Schmit, PT, DPT, PhD**, Assistant Professor

**Research Interests** Comparative efficacy of physical therapy interventions for children with Cerebral Palsy

## Joint Appointment Faculty Members

**Tzipi Horowitz-Kraus, PhD**, Assistant Professor (General Pediatrics)

**Research Interests** Program Director - Reading and Literacy Discovery Center. Language executive function in typical children and those with reading difficulties

**Jason Long, PhD**, Assistant Professor (Director - Motion Analysis Lab)

**Research Interests** Motion analysis; biomechanics; cerebral palsy; foot and ankle pathology

**Ardythe Morrow, PhD**, Professor (Neonatology and Pulmonary Biology )

**Research Interests** Scientific Director of Nutrition Research. Human milk; child health and nutrition

**Mark Paterno, PT, PhD, MBA, SCS, ATC**, Assistant Professor (Sports Medicine)

**Research Interests** Physical therapy management; ACL and sports overuse injuries; patellofemoral pain

**Catherine Quatman-Yates, PT, DPT, PhD**, Assistant Professor (Sports Medicine)

**Research Interests** Postural sway as biomarker for concussion; upper extremity injuries

**Alexander Vinks, PharmD, PhD, FCP**, Professor (Clinical Pharmacology)

**Research Interests** Scientific Director of Pharmacy Research. Population pharmacokinetics, pharmacokinetic-pharmacodynamic modeling, pharmacogenetics/genomics, clinical trial design and simulation, pharmacometrics/systems pharmacology

## Trainees

- **Alaaeldin Elsayed, MD, AuD**, Missouri State University, Springfield, MO
- **Rola Farah, PhD, CCC-A**, University of Cincinnati, Cincinnati, OH
- **Dobrinka Georgieva, PhD**, University of Bulgaria, Bulgaria
- **Maria Golla, MSP, CCC-SLP**, University of Cincinnati, Cincinnati, OH
- **Edith Morris, MSN, PhD**, University of Cincinnati, Cincinnati, OH

- **Yingying Wang**, , University of Cincinnati, Cincinnati, OH
- **J'ai Watson , MS**, University of Cincinnati, Cincinnati, OH
- **Yang-soo Yoon, PhD**, House (Ear) Research Institute, Los Angeles, CA
- **Stephanie Zacharias, AuD, PhD**, University of Cincinnati, Cincinnati, OH
- **JiHye Han, PhD**, University of Cincinnati, Cincinnati, OH
- **Periakaruppan Manickam, MD**, University of Cincinnati

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## Grants, Contracts, and Industry Agreements

### Grant and Contract Awards

Annual Direct

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#### Brady, W

##### Effects of Virtual Realty Simulation on Worker Emergency Evacuation of Neonates

Agency for Healthcare Research and Quality (Wright State University)

R18 HS023149	9/30/2014-9/29/2017	\$34,790
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#### Courter, J

##### Implementation of Antimicrobial Stewardship Interventions in Children's Hospitals using Benchmarking

Pfizer, Inc. (Children's Mercy Hospital)

	9/1/2013-8/31/2015	\$14,952
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#### Daraiseh, N

##### Just-in-Time Methods for Understanding Near-Misses, Injuries and Risk Factors

National Institutes of Health

R21 OH010035	9/1/2013-8/31/2015	\$152,529
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#### Hunter, L

##### Collaboration between WIC and EHDI to Improve Follow-up of Newborn Hearing Screening in Greater Cincinnati

Disability Research & Dissemination Center (University of South Carolina)

U01 DD001007	9/30/2013-9/29/2015	\$92,593
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#### Jaeger, S

##### HMG Hospital Based Regional Child Find

Ohio Department of Health

10/1/2012-9/30/2017

\$42,700

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**Pickler, R**

**Patterned Experience in Preterm Infants**

National Institutes of Health

R01 NR012307

1/1/2012-2/29/2016

\$263,857

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**Palliative Cancer Care: Music Video for AYA-Parent Communication and Resilience**

National Institutes of Health (Indiana University)

R01 CA162181

06/15/2014-05/31/2016

\$29,819

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**Rutkowski, S**

**Technical Assistance and Training for Maryland Project SEARCH Sites, Staff, and Stakeholders**

Maryland Developmental Disabilities Council

8/1/2014-7/31/2015

\$13,799

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**Current Year Direct**

**\$645,039**

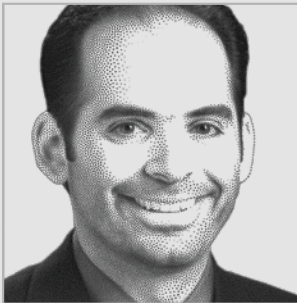
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**Total**

**\$645,039**

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# Future ACL Injury Risk Runs High After Reconstructive Surgery



Mark Paterno, PhD

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Young athletes who undergo ACL reconstructive knee surgery have a significantly higher rate of suffering a second ACL injury within two years. In addition, girls appear to face greater risk than boys for injuring their other ACL during that time.

Findings of the study, published in July 2014 in *The American Journal of Sports Medicine*, could lead to improved post-operative care and intervention strategies.

“The incidence of repeat injury is much higher than once thought in young, active patients,” says Mark Paterno, PhD, Scientific Director in the Division of Occupational Therapy and Physical Therapy and Associate Professor in the Division of Sports Medicine. “Essentially, this highlights the concern that our current outcome after ACL reconstruction is sub-optimal. With this knowledge, it is imperative that we challenge the current management after ACL injuries.”

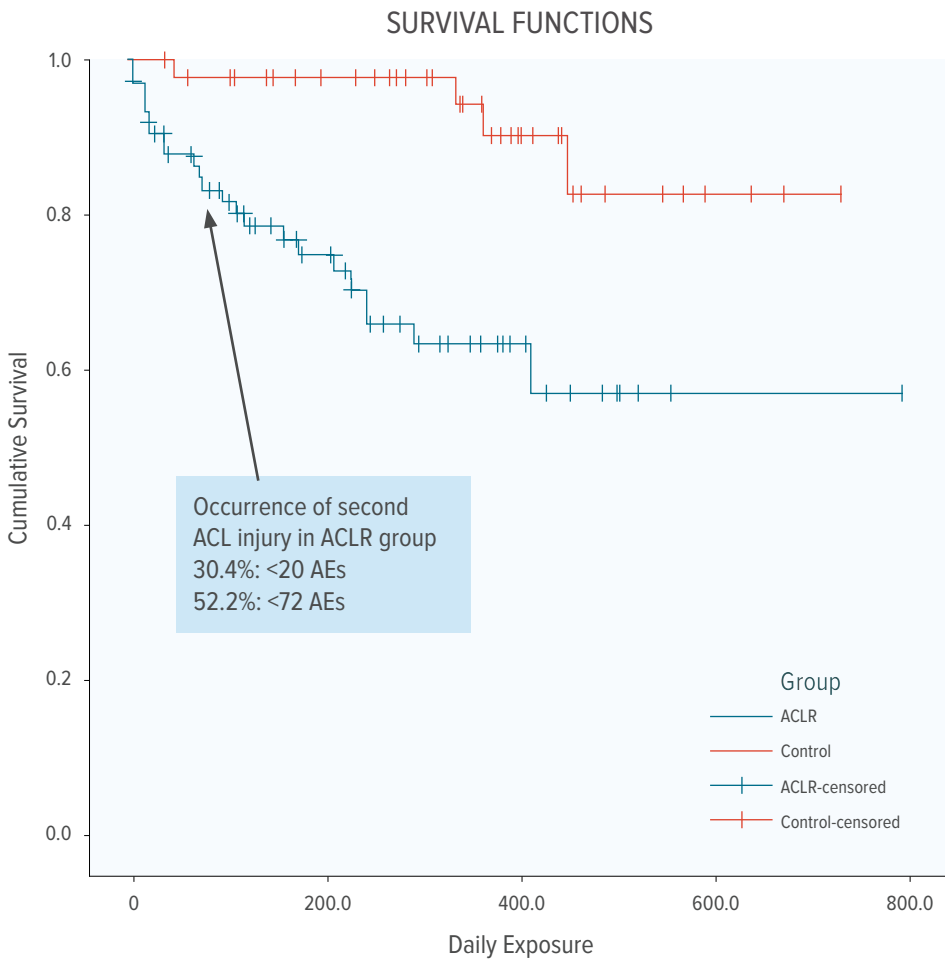
Thirty areas of patient care at Cincinnati Children’s work within Patient Services, ranging from OT/PT and ambulatory services to audiology and outpatient clinics. In the field of sports medicine, numerous studies have examined the prevalence of second ACL injuries within the first year of post-reconstruction, but none have reported the incidence normalized to athletic exposure further out. The team found that, overall, 29.5 percent of these young athletes suffered a second ACL injury within two years of returning to sports.

The proportion of athletes reinjuring the same ACL during this period of time was similar between girls and boys. However, 23.7 percent of girls with such an injury later injured the other ACL, compared to just 10.5 percent of boys.

## RESEARCH AND TRAINING DETAILS

Faculty	12
Joint Appointment Faculty	6
Research Fellows	7
Research Students	37
Support Personnel	34
Direct Annual Grant Support	\$645,039
Peer Reviewed Publications	83

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Paterno MV, Rauh MJ, Schmitt LC, Ford KR, Hewett TE. Incidence of Second ACL Injuries 2 Years After Primary ACL Reconstruction and Return to Sport. *Am J Sports Med.* 2014;42(7):1567-1573.



Young athletes who received one anterior cruciate ligament reconstruction (ACLR) were much more likely than non-injured athletes to suffer a subsequent ACL injury upon returning to pivoting or cutting sports activities. This Kaplan-Meier survival curve of ACL integrity shows that more than 30 percent of once-injured athletes experienced a second ACL injury within 20 activity exposures and 52 percent were injured within 72 exposures. Conversely, none of the athletes in the control group were injured in their next 20 exposures and only one was injured in less than 72 exposures.