

Global Child Health

Division Details

RESEARCH AND TRAINING DETAILS

Faculty	3
Total Annual Grant Award Dollars	\$424,026



A Dawodu, E Schlaudecker

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Division Highlights

Steven B. Black, MD

The Risk of Narcolepsy following Adjuvanted Pandemic Influenza Vaccine

In this U.S. Center for Disease Control and Prevention (CDC) funded study, [Dr. Steven Black, MD](#), (PI) evaluated the possible association of narcolepsy and adjuvanted 2009 pandemic H1N1 influenza vaccine in a global collaborative study including Taiwan, Argentina, Canada, the Netherlands, Switzerland, and Spain. The study did not identify evidence for an increased risk of narcolepsy following adjuvanted vaccines. This finding will inform the use of adjuvants for future epidemics. Dr. Black submitted a manuscript of the study results for publication.

Steven B. Black, MD

Global Vaccine Initiative Pilot Data Linkage Project

This project was a World Health Organization (WHO) sponsored pilot to evaluate the feasibility of multi-national data linkage studies to identify and evaluate vaccine safety concerns. Participating sites included eight sites in Latin America plus sites in Iran, Albania, India, South Africa, Singapore, China and Australia. The collaboration was successful with publications developed both on the methods and the results. Three publications related to this work are in press in the journal *Vaccine*.

Adekunle Dawodu, MBBS, FRCPCH

Racial disparities in cord blood vitamin D levels and its association with small-for-gestational age infants

Vitamin D is commonly known for its role in calcium metabolism and bone health but recently has gained attention for its role in pregnancy outcome. Small-for-gestational age status in observational studies links to maternal vitamin D status. Racial disparity in maternal and neonatal vitamin D deficiency described in pregnancy and suggested as possible explanation for disparity regarding fetal growth and small-for-gestational age status.

[Dr. Dawodu](#) and his colleagues in the Divisions of [Neonatology](#), and [Biostatistics and Epidemiology](#) at Cincinnati Children's Hospital Medical Center evaluated the relationship between race and maternal characteristics and the association with cord vitamin D levels and small-for-gestational age. Black infants have greater risk of vitamin D deficiency compared to white infants and black infants but not white

infants with vitamin D deficiency had higher odds of small-for-gestational age. The study suggests that identification of risk factors can lead to opportunity to target vitamin D supplementation during pregnancy among at risk population to reduce the risk of vitamin D deficiency and small-for-gestational age.

Mark C. Steinhoff, MD

Dr. Mark Steinhoff, and colleagues at [Johns Hopkins University](#), [Seattle Children's Hospital](#), and [Tribhuvan University in Kathmandu](#), have published a prospective randomized placebo-controlled trial of influenza vaccine in pregnant women in rural Nepal.

Randomized 3693 women received placebo or influenza vaccine throughout the year, as influenza A virus circulates for most of the year in this tropical setting. The vaccine significantly reduced maternal and infant influenza episodes, and increased birth weight of a subset of infants (*Lancet Infectious Diseases*, May 2017). The [Bill & Melinda Gates Foundation](#) generously supports this project.

We are planning to evaluate the cognitive development of the infants with increased birth weights.

We have also published eight additional papers from this project, describing infant and maternal infections related to metapneumovirus, rhinovirus, pertussis, respiratory syncytial virus and other infections.

Division Publications

1. Pitt MB; Moore MA; John CC; Batra M; Butteris SM; Airewele GE; Suchdev PS; Steinhoff MC. [Supporting global health at the pediatric department level: Why and how](#). *Pediatrics*. 2017; 139:e20163939.
2. Phadke VK; Steinhoff MC; Omer SB; MacDonald NE. [Maternal influenza immunization and adverse birth outcomes: Using data and practice to inform theory and research design](#). *American Journal of Epidemiology*. 2016; 184:789-792.
3. Chu HY; Katz J; Tielsch J; Khatry SK; Shrestha L; LeClerq SC; Magaret A; Kuypers J; Steinhoff M; Englund JA. [Respiratory syncytial virus infection in infants in rural Nepal](#). *Journal of Infection*. 2016; 73:145-154.
4. Ambroggio L; Sucharew H; Rattan MS; O'Hara SM; Babcock DS; Clohessy C; Steinhoff MC; Macaluso M; Shah SS; Coley BD. [Lung Ultrasonography: A Viable Alternative to Chest Radiography in Children with Suspected Pneumonia?](#). *The Journal of Pediatrics*. 2016; 176:93-98.e7.
5. Bonhoeffer J; Kochhar S; Hirschfeld S; Heath PT; Jones CE; Bauwens J; Honrado Á; Heining U; Muñoz FM; Eckert L. [Global alignment of immunization safety assessment in pregnancy - The GAIA project](#). *Vaccine*. 2016; 34:5993-5997.
6. Jones CE; Munoz FM; Kochhar S; Vergnano S; Cutland CL; Steinhoff M; Black S; Heining U; Bonhoeffer J; Heath PT. [Guidance for the collection of case report form variables to assess safety in clinical trials of vaccines in pregnancy](#). *Vaccine*. 2016; 34:6007-6014.
7. Seto TL; Tabangin ME; Langdon G; Mangeot C; Dawodu A; Steinhoff M; Narendran V. [Racial disparities in cord blood vitamin D levels and its association with small-for-gestational-age infants](#). *Journal of Perinatology*. 2016; 36:623-628.
8. Ramprasad C; Zachariah R; Steinhoff M; Simon A. [Parental attitudes towards influenza vaccination for children in South India](#). *World Journal of Pediatrics*. 2017; 13:84-90.
9. Ebenezer K; Dawodu A; Steinhoff M. [Serum Vitamin D Status and Outcome among Critically Ill Children Admitted to the Pediatric Intensive Care Unit in South India: Authors' Reply](#). *The Indian Journal of Pediatrics*. 2016; 83:912-913.
10. Hughes MM; Englund JA; Kuypers J; Tielsch JM; Khatry SK; Shrestha L; LeClerq SC; Steinhoff M; Katz J. [Population-based pertussis incidence and risk factors in infants less than 6 months in Nepal](#). *Journal of the Pediatric Infectious Diseases Society*. 2017; 6:piw079.

11. Salameh K; Al-Janahi NSA; Reedy AM; Dawodu A. [Prevalence and risk factors for low vitamin D status among breastfeeding mother-infant dyads in an environment with abundant sunshine.](#) *International Journal of Women's Health.* 2016; Volume 8:529-535.

Grants, Contracts, and Industry Agreements

Annual Grant Award Dollars

Investigator	Title	Sponsor	ID	Dates	Amount
Steven Black, MD	Clinical Immunization Safety Assessment	Ctr for Disease Control and Prevention	200-2012-53661	09/29/2013 - 09/28/2017	\$39,256
Mary Allen Staat, MD	Potential Mechanisms for Intussusception after Rotavirus Vaccine	Ctr for Disease Control and Prevention	200-2012-53661	09/29/2014 - 09/28/2017	\$198,682
Steven Black, MD	Global Research in Paediatrics	Erasmus University Rotterdam	Erasmus_Black	01/01/2016 - 12/31/2016	\$45,001
Elizabeth Schlaudecker, MD	Clinical Study of the Safety of Simultaneous versus Sequential Administration of Tetanus Toxoid, Reduced Diphtheria Toxoid and Acellular Pertussis Vaccine (Tdap) and Inactivated Influenza Vaccine (IIV) in Pregnant Women – Pilot Contributing Site Logical Follow-On	Ctr for Disease Control and Prevention	200-2012-53661 0006	09/17/2016 - 10/01/2017	\$141,087
Total Annual Grant Award Dollars					\$424,026
