

Division Data Summary

Research and Training Details

Number of Faculty	3
Number of Support Personnel	11
Direct Annual Grant Support	\$164,163
Peer Reviewed Publications	13

Division Photo



Left to Right: A Dawodu, M Steinhoff, S Black

Significant Publications

Division Highlights

Adekunle Dawodu, MBBS

The partnership program between Cincinnati Children's Hospital and The Procter and Gamble Company has been extended for another 3 years (July 2010-June 2013). The program has been expanded to include the countries of China, Brazil, Mexico, Nigeria, and Pakistan. The new program will include 9-month clinical research training for 4 research scholars and opportunities for 2-month clinical observership for a total of 18 selected physicians at CCHMC and UC's OB/Gyn department.

Adekunle Dawodu, MBBS

A case-control study of vitamin D status and hospitalized childhood pneumonia in Nigeria in collaboration with Dr. Patience Hamed of National Hospital, Abuja is in progress. The results would provide preliminary data to support request for funding for a large randomized controlled trial of the effect of vitamin D supplementation on the incidence of ALRTI in children in low-resourced regions.

Steven Black, MD

Dr. Black co-chaired an international workshop sponsored by International Alliance for Biological Standardization on 'Post-licensure Evaluation of Vaccine Safety: Current Status and Future Directions.'

Influenza Research

Drs. Mark Steinhoff and Steve Black have been awarded a grant from the Centers for Disease Control and Prevention for three years to evaluate and determine the burden of influenza in children in Suzhou, China. The purpose of this project is to better understand the role of influenza in causing respiratory illness in young children in China and to assess the timing and variability of strains of influenza causing hospitalization in this age group.

Faculty Members

Mark Steinhoff, MD, Professor

Division Director, Global Child Health

Research Interests Maternal Immunization

Steven Black, MD, Professor

Research Interests Vitamin D Supplementation

Adekunle Dawodu, MD, Professor

Director, International Patient Coordination

Research Interests Vaccine Safety

Significant Accomplishments

Maternal Influenza Immunization

The Mother's Gift influenza immunization trial is a Bill & Melinda Gates Foundation-funded prospective trial of influenza immunization during pregnancy, which is carried out with collaborators in Nepal. The study follows an earlier Gates Foundation-funded maternal immunization project in Bangladesh, and the purpose is to evaluate the effects seen in the Bangladesh trial in greater detail. We will recruit 1,600 pregnant women, randomize them to receive influenza vaccine, or a placebo, and assess maternal, newborn and infant outcomes in the two groups. The study is done in collaboration with the Institute of Medicine in Kathmandu, Nepal, Johns Hopkins University and the University of Washington. Recruitment of subjects in the Terai region of Nepal began in May. By the end of June, 300 mothers had been recruited and immunized, and recruitment will continue. All mothers and infants are followed until the infants reach 6 months of age. Part of the project is developing PCR capability within Nepal to diagnose and characterize influenza viruses.

Vitamin D Research

A study by Adekunle Dawodu, MBBS, evaluating prenatal vitamin D supplementation in women in the United Arab Emirates, funded by the Thrasher Research Fund, has completed enrollment and follow-up of patients. The data are being analyzed. The findings indicate that 98 percent of subjects upon enrollment are vitamin D deficient. This extraordinarily high prevalence of vitamin D deficiency during pregnancy could have significant adverse effect on the mother and the growing fetus. This study will provide the first data to determine the efficacy of high-dose vitamin D to prevent deficiency in mothers and their newborns in a high-risk population.

International Visitors

In FY2011, the International Visitors' Office within the Global Health Center facilitated more than 150 visitors from 39 countries to come to Cincinnati Children's to learn from our world-renowned faculty. Visitors went to more than 30 divisions throughout the medical center. Through these visits, we are able to change the outcome for more children around the world through education and research.

Division Publications

1. Bernstein HH, Noriega F. **Immunogenicity and safety of a combined diphtheria, tetanus, 5-component acellular pertussis, inactivated poliomyelitis, Haemophilus type b conjugate vaccine when administered concurrently with a pneumococcal conjugate vaccine: a randomized, open-label, phase 3 study.** *Vaccine*. 2011; 29:2212-21.
2. Black S. **Travelers' protection against meningococcal disease: a new vaccine option.** *J Travel Med*. 2010; 17 Suppl:18-25.
3. Black S, Della Cioppa G, Malfroot A, Nacci P, Nicolay U, Pellegrini M, Sokal E, Vertruyen A. **Safety of MF59-adjuvanted versus non-adjuvanted influenza vaccines in children and adolescents: an integrated analysis.** *Vaccine*. 2010; 28:7331-6.
4. Black S, Rappuoli R. **A crisis of public confidence in vaccines.** *Sci Transl Med*. 2010; 2:61mr1.
5. Cochran LW, Black S, Klein NP, Dekker CL, Lewis E, Reingold AL. **Vaccine effectiveness against laboratory-confirmed influenza in infants: A matched case control study.** *Hum Vaccin*. 2010; 6.
6. Eskola J, Black S. **[Global challenges of Haemophilus vaccinations quarter of a century after the Hib project].** *Duodecim*. 2010; 126:1047-54.
7. Henkle E, Steinhoff MC, Omer SB, Roy E, Arifeen SE, Raqib R, McNeal M, Breiman RF, Moss WJ, Zaman K. **Incidence of influenza virus infection in early infancy: a prospective study in South Asia.** *Pediatr Infect Dis J*. 2011; 30:170-3.
8. Klein NP, Hansen J, Lewis E, Lyon L, Nguyen B, Black S, Weston WM, Wu S, Li P, Howe B, Friedland LR. **Post-marketing safety evaluation of a tetanus toxoid, reduced diphtheria toxoid and 3-component acellular pertussis vaccine administered to a cohort of adolescents in a United States health maintenance organization.** *Pediatr Infect Dis J*. 2010; 29:613-7.
9. Omer SB, Goodman D, Steinhoff MC, Rochat R, Klugman KP, Stoll BJ, Ramakrishnan U. **Maternal influenza immunization and reduced likelihood of prematurity and small for gestational age births: a retrospective cohort study.** *PLoS Med*. 2011; 8:e1000441.
10. Rimo AW, Walker CL, Hamza HS, Elminawi N, Ghafar HA, Vince A, da Cunha AL, Qazi S, Gardovska D, Steinhoff MC. **The utility of rapid antigen detection testing for the diagnosis of streptococcal pharyngitis in low-resource settings.** *Int J Infect Dis*. 2010; 14:e1048-53.
11. Steinhoff MC, Schlaudecker EP, Cherian T. **Haemophilus Influenzae Infection.** *Tropical Infectious Diseases: Principles, Pathogens, and Practice*. New York: Saunders; 2011.
12. Vernet G, Saha S, Satzke C, Burgess DH, Alderson M, Maisonneuve JF, Beall BW, Steinhoff MC, Klugman KP. **Laboratory-based diagnosis of pneumococcal pneumonia: state of the art and unmet needs.** *Clin Microbiol Infect*. 2011; 17 Suppl 3:1-13.
13. Zhang T, Black S, Hao C, Ding Y, Ji W, Chen R, Lin Y, Eskola J, Shinefield H, Knoll MD, Zhao G. **The blind nasotracheal aspiration method is not a useful tool for pathogen detection of pneumonia in children.** *PLoS One*. 2010; 5:e15885.

Grants, Contracts, and Industry Agreements

Grant and Contract Awards

Annual Direct / Project Period Direct

BLACK, S

Epidemiology and Burden of Influenza in Children at Suzhou Children's Hospital

Ctr for Disease Control and Prevention

09/30/10-09/29/13

\$125,263

STEINHOFF, M

Project Subagreement #GAT.1296-07373-SRV

Path Vaccine Solutions

01/01/07-06/30/11

\$7,752

Infant Effects of Maternal Immunization

Emory Univ School of Public Health(National Institutes of Health)

R34 AI 091437

09/23/10-08/31/11

\$31,148

Current Year Direct

\$164,163

Total

\$164,163