Pediatric News
An electronic newsletter from the Department of Pediatrics

October 2012

Developing International Opportunities

We are very pleased that Dr. Stephen Obaro joined the faculty of the Department of Pediatrics in July, 2012. Dr. Obaro is an expert in infectious diseases, with a focus in international health. He brings a strong track record of international studies in several African countries. Dr. Obaro is the principal investigator on major new grants from the Gates Foundation and NIH, studying infectious diseases in Nigeria, his home country.

In August, 2012, the University of Nebraska sent a group to Nigeria to support this important new research direction. The UNMC delegation included Dr. John Sparks, Chair, Department of Pediatrics, Dr. Dele Davies, Vice-Chancellor for Academic Affairs, Dr. Ashish Joshi and Dr. Ge Lin, faculty from the College of Public Health, Deb Thomas, Associate Vice Chancellor for Business and Finance and Jeff Miller, Assistant Controller. Dr. Ajovi Scott-Emuakpor, Professor of Hematology and Oncology, Michigan State University also joined the trip.

The group had a highly successful trip in developing relationships important to UNMC faculty's future work in Nigeria. Accomplishments included obtaining a Memorandum of Understanding in support of Dr. Obaro's projects with each of the following: the University of Ibadan, the University of Abuja, and key hospital sites in Ibadan and Abuja. The group also visited key performance sites in Nigeria. Importantly, we also established the financial relationships enabling the work to proceed.

Dr. Obaro's projects will provide important new information regarding infectious diseases in Nigeria, and around the world. Importantly, this work will also develop infrastructure permitting extension of research, education and clinical collaboration between UNMC and our partners in Nigeria.

Division Spotlight - Pediatric Infectious Diseases

The division of Pediatric Infectious Diseases at UNMC has grown from 1 faculty member to 5 over the course of the last 4 years.

The division also has an established fellowship training program. In June, Dr. Michelle Hoffman successfully completed her training and has joined a group practice in...
Florida. Dr. Andrea Green completed her pediatric infectious disease training and is now completing her adult training at UNMC. The new fellows include Dr. Kari Neemann, who is a third-year fellow after completing two adult ID fellowship years in her combined program, and Dr. Rima Khasawneh, who is a first year fellow that completed her pediatric residency at KUMC in Kansas City, Kansas.

We see inpatients at UNMC, Children's Hospital and Medical Center, Alegent-Bergan Mercy Hospital and Creighton University Medical Center. We also manage outpatients at Children's Specialty Pediatric Center (Tues-Thurs), at the UNMC-P Specialty Care Center (HIV care)Tues PM, and the UNMC-P Vaccines and Safe Travel (VAST) clinic at Village Pointe (Friday) where we see children and families who are planning travel abroad.

**Pediatric Infectious Diseases Faculty & Staff**

*Kari Simonsen, M.D.*  
Assistant Professor and Division Chief  

*H. Dele Davies, M.D.*  
Professor, Vice Chancellor for Academic Affairs, Dean for Graduate Studies  

*Shirley Delair, M.D.*  
Assistant Professor  

*Stephen Obaro, M.B., B.S., Ph.D.*  
Professor  

*Jessica Snowden, M.D.*  
Assistant Professor  

*Kallie Hannam, R.N.*  
Maggie Krejci, PA-C  
Marilyn VanGestel, R.N.  

*Raven VonBehren*  
Office Associate  

*Dee Becker*  
Clinic Administrative Assistant  

*Matthew Beaver*  
Research Assistant

**Pediatric Infectious Diseases Grants**

- **Establishing Surveillance for Invasive Bacterial Infections:** Dr. Obaro is establishing surveillance for serious invasive bacterial infections in children, such as sepsis, meningitis and pneumonia in order to generate local epidemiologic data and use these to drive advocacy for implementation of the use of new vaccines or development of new or improvement of existing vaccines. He and his team are also studying the host risk that predispose to the different clinical syndromes such as sickle cell disease, human immune deficiency virus and malnutrition. This surveillance platform at different locations in Nigeria will also be used for monitoring the impact of these vaccines or other preventive strategies. The establishment of these surveillance activities is supported by a grant from the Bill and Melinda Gates Foundation.

- **Invasive Salmonellosis:** Based on Dr. Obaro’s pilot studies, he is now following
up to improve understanding of host immune response to Salmonella Typhi, the causative agent of typhoid fever. Dr. Obaro and his team are evaluating gene expression profiles in acutely infected children to identify biomarkers that could be used to develop non-culture based diagnostic tests and also to develop new vaccines. Support for this study is provided through an RO1 grant from the NIH.

- **Interactions between Immune System and Shunt Infections:** Cerebrospinal fluid (CSF) shunt infections are a frequent and serious complication in the treatment of hydrocephalus in the pediatric population. The most common organisms responsible for these central nervous system (CNS) catheter infections, S. epidermidis and S. aureus, are both known to form biofilms. The biofilm's ability to evade the host immune response and antimicrobial agents makes it difficult to manage CNS catheter infections non-surgically, such that catheter removal is currently required to effectively treat these infections. To explore this immune response, Dr. Snowden has developed a novel mouse model of CNS catheter infection with S. aureus and S. epidermidis. Work is currently underway in her laboratory to investigate the mechanisms for this altered immune response. Understanding these interactions will allow for the exploration of novel management strategies for these CNS infections. This project is funded by an NIH K08 mentored career development award.

- **Rapid HIV Testing and Counseling:** Dr. Simonsen is PI on a collaborative project through the Great Plains Public Health Training Center. This pilot funding will offer rapid HIV testing and counseling to persons being discharged from the Douglas County Department of Corrections. This work will expand the ongoing "Do JuSTice" Academy of Service Learning Project, PI-Dr. Ruth Margalit, at UNMC in which Drs. Simonsen and Delair are faculty supervisors to interdisciplinary groups of students providing STI testing, treatment and counseling at the jail.

- **C. difficile Colonization Status of Preterm NICU Infants:** Dr. Simonsen is collaborating with others from the Department of Internal Medicine, and UNL Department of Biochemistry on rapid PCR technology. A Lozier Foundation departmental grant is supporting a project in this lab to evaluate the C. difficile colonization status of preterm NICU infants, with collaborating neonatologists in the The Nebraska Medical Center and Children's Hospital NICUs.

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**Pediatric ID & Public Health**

Dr. Simonsen is the Medical Advisor to the Douglas County Health Department, and the HIV liaison to the UNMC College of Public Health's Great Plains Public Health Training Center, a HRSA-funded major public health collaborative for the State of Nebraska.

**Congratulations**

Nicholas Torbert, D.O. (HO-III) had the opportunity to present work conducted with Dr. Cristina Fernandez at the 2012 World Congress for Health and Safety in London, UK, September 8-9. The titles of the presentations included:

- Awareness of Health Lifestyle choices in an Inner City Pediatric Clinic 5-4-3-2-1 Go!
- Subjective Thoughts of the Educator on Abuse and Neglect
- Fit for Life Healthy Habits Month: A Healthy Habits Curriculum for Kids

**Announcements**
● Preconference Trainings for the 18th Annual Maternal & Child Health Epidemiology Conference
The Association of Maternal and Child Health Programs (AMCHP) is offering 4 preconference trainings on December 11th, 2012 prior to the 18th Annual MCH EPI Conference. For more information about the trainers, learning objectives, and MCH leadership competencies addressed in the trainings, view the call for applications. To apply for the preconference trainings (due October 19th), visit http://www.regonline.com/Register/Checkin.aspx?EventID=1134982. Questions should be directed to Tegan Callahan at tcallahan@amchp.org.

● CityMatCH Releases Local Perspectives and Recommendations on Neonatal Abstinence Syndrome
CityMatCH, the National Organization of Urban MCH Leaders housed in the Department of Pediatrics, has published an article, "Local Perspectives and Recommendations on Neonatal Abstinence Syndrome," in the National Institute for Health Care Management Foundation's Health Update: Women, Children, and Adolescents. You can download the article using the following URL: http://www.nihcm.org/images/stories/WCAHU_CityMatch_article_Sept_2012.pdf.