

## Maternal Infant-Child Health and Environment Research Symposium:

### “How Local Research can Influence Policy and Practice”

Thursday, February 26<sup>th</sup>, 2009, 08:00-17:00 hrs

Maple Leaf Room, Lister Hall, University of Alberta

#### Speaker Bio-sketch:



*Piush J. Mandhane, MD, PhD(Candidate)*

Dr. Piush Mandhane is a pediatric respirologist, and the Edmonton site leader and executive member for the Canadian Healthy Infant Longitudinal Development (CHILD) study. Within the Edmonton CHILD cohort, he is studying the association between sleep disordered breathing (SDB) and cognitive development in children.

Dr. Mandhane completed his MD at the University of Toronto in 1997, paediatric residency at the University of Alberta in 2001, and fellowship in pediatric respiratory medicine at the Hospital for Sick Children in 2003. From 2003 to 2007, he was a PhD student working with Dr. Malcolm Sears in the Firestone Institute for Respiratory Health and Dr. Steve Hanna at McMaster University. During his PhD, he examined gender differences in the presentation of atopy and asthma. To specifically understand the role of estrogen and progesterone in asthma, Dr. Mandhane completed a study in adult females with asthma on and off oral contraception, to determine the timing of changes in airway inflammation in relation to hormone levels during the menstrual cycle.

Currently, Dr. Mandhane is the Edmonton site leader and executive member for the Canadian Healthy Infant Longitudinal Development (CHILD) study. The CHILD study, a prospective birth cohort of 5,000 children, is powered to test multiple hypotheses within the theme that specific environmental exposures together with genetic and immunological determinants, lead to pathophysiological allergic responses, and that clinical outcomes including asthma may be further modified by lung growth, hormonal and metabolic influences and psychosocial environment. The cohort will provide a platform for many current and future studies of childhood allergy and asthma. Within the Edmonton cohort (1000 children), Dr. Mandhane proposes to study the association between sleep disordered breathing (SDB) and cognitive development in children.

#### Publications:

1. **Mandhane PJ**, Zuberbuhler P, Lange C. F, Finlay, W. H. Albuterol MDI Aerosols in Intubated Pediatric Models of 3 Ages, with 4 Spacer Designs. *Respir. Care* 48:948-955, 2003.
2. **Mandhane PJ**, Greene JM, Cowan JO, Taylor DR, Sears MR. Sex differences in factors associated with childhood and adolescent onset wheeze – *AJRCCM* 172: 45 – 54, 2005
3. **Mandhane PJ**, Greene JM, Sears MR. Interaction between breast-feeding, parental atopy, and sex on the development of asthma and atopy. *JACI* 119: 1359-1366, 2007
4. Johnston NW, **Mandhane PJ**, Dai J, Duncan JM, Greene JM, Lambert K, Sears MR. The September epidemic of asthma exacerbations in children: A randomized controlled trial of montelukast added to usual therapy. *Pediatrics* 120: e702 - e712, 2007
5. Taylor DR, **Mandhane PJ**, Greene JM, Hancox RJ, McLachlan CR, Williamson AJ, Filsell S, Cowan JO, Smith AD, Sears MR. Factors affecting exhaled nitric oxide in a large population: the importance of gender. *Respiratory Research* 8:82 2007