### “Dendritic Cell Migration in Airway Inflammation: Role of Surfactant Protein D (SP-D)”

**Dr. Angela Haczku**  
Research Associate Professor of Medicine and Pharmacology  
University of Pennsylvania Medical Centre

**Abstract**

The surface area of an adult lung has approximately the same size as a football field. This area is constantly bombarded by inhaled foreign particles and yet it normally remains inflammation and infection free. The mechanisms that ensure both the elimination of inhaled toxic, infectious or allergenic material and protection from an ensuing inappropriate immune response are unclear but we know that the resident innate and adaptive immune mechanisms play a key function. This lecture discusses the dendritic cell mediated regulatory pathways during development of inflammatory airway changes. My laboratory was one of the few that originally raised the importance of the lung collectin, SP-D in allergen induced airway inflammation and the one that discovered a feedback regulation between Th2 cytokines (IL-4/IL-13) and IL-6 with the SP-D gene. Our current studies support a novel concept that lectin-like modulation of the innate and the adaptive immune responses in the lung facilitates resolution of the inflammatory airway changes and is necessary to prevent chronic damage. These studies are important because they will provide us with unique, novel opportunities to control and manipulate the pulmonary immune system.

**References:**