Dr. Emily DiMango

In this application, we propose a clinical research trial to compare non-pharmacologic therapy and standard pharmacologic therapy in asthma. The target population includes inner-city minority individuals living in Manhattan, the Bronx and the New York City area. This protocol is designed to determine whether multi- faceted environmental intervention aimed at reducing exposure to indoor allergens to which asthmatic patients are sensitized is more effective than usual care in reducing NAEPP step based therapy, a novel, but important outcome measure. Collaboration of Columbia University Medical Center in Manhattan, New York and Jacobi Hospital in the Bronx, New York will ensure that minority individuals are represented in this important study. The protocol involves a major public health concern in asthma, one that is critical for the entire asthma population, but is most salient for residents of inner cities. The proposed study rigorously tests national guidelines in asthma care and fills a gap in understanding the importance of environmental remediation as it compares with need for pharmacological therapy for asthma control. Results of the study have the potential to affect public health policy as well as reimbursement from third party health care insurance companies. Investigators in this application have the proven ability to design and execute clinical research trials in asthma, with a track record that exceed expectations for recruitment. Specifically, our study aims to: i.) determine via a randomized, controlled trial in allergen-sensitized asthmatic patients whether environmental intervention aimed at reducing exposure to indoor allergens and irritants is more effective in reducing NAEPP step based therapy than usual care over a 48 week study period, ii) determine if environmental intervention leads to reduction in indoor allergen levels, allergen- specific serum IgE levels, airway hyperresponsiveness, fractional excretion of nitric oxide, sputum eosinophil count, asthma symptom score, asthma exacerbations, treatment failures and improved lung function compared to usual care over a 48 week study period and iii) determine if there is an association between reduction in allergen specific IgE level and reduction in NAEPP step level required for asthma control among subjects randomized to environmental intervention compared with usual care.