Healthy Homes Grantees in Region IV, Southwest, Caribbean

**Name of Grantee:** Georgia Tech Applied Research Corporation, Georgia Tech Research Institute

**Name of Project:** Personal Exposure Monitoring Vest Development

**Amount Awarded:** $468,890

**Year of Grant:** 2004

**Contact info:**
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**Project Partners:** Georgia Tech Applied Research Corporation, Georgia Tech Research Institute, Keehi Technologies, Inc.

**Summary of Project Activities:**

The focus of the study is on the development of a personal exposure monitoring vest that is expected to link actual home environmental exposures experienced by asthmatic children to pulmonary function. Ultimately, the vest is to provide data, during subsequently funded population studies, to prove or disprove the hypothesis that personal exposures to airborne contaminants (both indoors and outdoors) are associated with increased airways inflammation and/or decreased lung function, which can be shown by determining concomitant variation between lung function and environmental airborne contaminant exposures. In addition, the use of the vest will provide data on the actual trigger contaminants for asthma aggravation by examining statistical correlations between measured exposures and changes in pulmonary function over time.

**Partner Organizations:**

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**Product Outcomes/Outputs:**

**Outcomes of the Personal Exposure Monitoring Vest Development study will include:**

- A prototype wearable personal monitoring system

The personal monitoring system will measure and monitor exposure and pulmonary function in children to determine links between environmental exposures and asthma exacerbations.