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*2004 Program*

*Small Business Technology  
Transfer (1-year project)*

**Project Title:** An Exhaled Breath Detection System for Environmental Tobacco Smoke Exposure

**Project Summary:**

The main objective of this project is to design and implement an exhaled-breath detector for determining exposure of children to environmental tobacco smoke (ETS). Exposure to ETS is particularly hazardous to children and has been shown to be responsible for or to exacerbate a large number of childhood illnesses. Ongoing monitoring of progress has been limited by existing technology for identifying ETS exposure. This research seeks to prove that a handheld exhaled breath based ETS detector will have broad implications for ETS research allowing for real-time evaluation of the relationship of ETS to asthma and other respiratory diseases.