

**For immediate release**

## **PanAm visitors can monitor their air pollution exposure**

(Toronto, 14 July 2015) A new device developed by Canadian researchers at the University of Toronto (U of T) and the Allergy, Genes and Environment ([AllerGen](#)) Network will help athletes, visitors and local residents monitor their exposure to air pollution during the Pan Am and Parapan Am Games.

*AirSENCE* is an inexpensive air quality monitoring system that measures the air quality health index (AQHI) and estimated concentrations of a number of air pollutants at Pan Am and Parapan Am sites across Toronto.

*AirSENCE* was developed by AllerGen investigators Dr. Greg Evans, a U of T chemical engineering professor, and Dr. Jeffrey Brook, a Senior Research Scientist with Environment Canada and an adjunct professor in the Dalla Lana School of Public Health, also at the U of T. The project is led by U of T PhD student Natalia Mykhaylova.

Using prototypes of their *AirSENCE* devices, the team has launched AirSensors ([www.airsensors.ca](http://www.airsensors.ca)), a website that features an interactive map of the Games' venues and provides hourly AQHI forecasts. "Click on a location to see the air quality health index and the estimated concentrations of key air pollutants over the previous three days," says Dr. Evans. "Clicking on multiple sites allows you to compare them."

The tool also allows users to compare *AirSENCE* data with air quality readings from the Ontario Ministry of Environment and Climate Change and the [Southern Ontario Centre for Atmospheric Aerosol Research](#) (SOCAAR).

While Toronto's air quality is better than many global cities that have hosted major sporting events, poor air quality days do occur. The AirSensors website will help residents and visitors—especially those with allergies, asthma or other respiratory conditions—to plan the timing and location of their activities. Athletes can use the tool to be alerted to poor air quality during their event or they may choose to adjust their pre-event training based on air quality.

"Each *AirSENCE* device uses an array of 14 sensors to estimate concentrations of five air pollutants: nitrogen oxides, ozone, particulate matter, carbon monoxide and carbon dioxide," explains Dr. Evans. "This allows people to monitor air pollution in their local environment in real time."

This new technology will help Canadians long after the Pan Am and Parapan Am Games have concluded, according to Dr. Evans. "Following the Games, we will recalibrate and upgrade the *AirSENCE* devices, and deploy them at a variety of locations," he says. "In 2016, we will launch the devices in Beijing. Ultimately, *AirSENCE* will enable users worldwide to make better-informed choices to manage their exposures to outdoor or indoor pollutants, reducing both the risk of exacerbations of pre-existing health conditions, like asthma, and of development of chronic disease through long-term exposure."

## **About AllerGen NCE**

[AllerGen NCE Inc.](#), the Allergy, Genes and Environment Network (est. 2004), is a national research network dedicated to improving the quality of life of people suffering from allergic and related immune diseases. Funded by Industry Canada through the federal Networks of Centres of Excellence (NCE) Program, the Network is hosted at McMaster University in Hamilton. Visit [www.allergen-nce.ca](http://www.allergen-nce.ca) for more information.

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