

# LexaGene [TSX-V:LXG/OTCQB:LXXGF] Pushing the Boundaries of Rapid Pathogen Detection

**F**or years, the food safety industry has been reliant on antiquated testing methodologies around culturing and testing of samples. Typically, a food sample test takes 2 to 3 days. During this time, processing and packaging plants have to store the perishable food items, which usually results in the deterioration of its shelf life and value. All too often, products are shipped to consumers without sufficient testing, only to find out about a contamination after people start falling ill. Recalls can cost millions and cause irreparable brand damage.

LexaGene [TSX-V:LXG/OTCQB:LXXGF] aims to provide a better testing solution to the food industry. LexaGene is currently developing a technology that will simplify sample testing and significantly reduce the time to generate results. LexaGene's technology returns results in about one hour, versus standard methods that take several days. "LexaGene's automated molecular testing instrument is easy to use, extremely sensitive, and can quickly detect many different pathogens which will improve chances that the food and drinks we consume are safe," says Dr. Jack Regan, CEO and Founder of LexaGene.

LexaGene's technology is perfectly suited for food safety testing—its compact and user-friendly design allows plant workers to load samples into the instrument without having to complete extensive specialized training. The automated instrument analyzes the loaded samples for genetic signatures that represent the pathogens that are common to the food industry. Further, the device can detect pathogens in the environment, and quantify them to get a measure of the cleanliness of a sample or an area in the plant suspected to be contaminated. LexaGene's technology is capable of identifying up to 22 pathogens at once and can process large volumes of fluid for enhanced sensitivity, which is one of the prime challenges in food safety. Also, the instrument is open-access and allows users

**“ LexaGene offers the technology to assist food safety officers in mitigating risks in a cost-effective way while also addressing the industry pain points ”**

to customize their own tests to detect any bacteria they want. This capability is unique to LexaGene's product, as all other providers only sell closed-access testing systems that cannot be customized to detect specific microbes.

The cost of performing molecular tests has prevented genomic testing from being adopted into the food safety industry. To date, all other providers of automated molecular pathogen testing only sell fully integrated cartridges/pouches for testing, which are very expensive to manufacture. As a result, these providers almost exclusively sell only into the human clinical diagnostics market. In contrast, LexaGene anticipates being able to provide testing for the cost-sensitive food safety market since its microfluidic technology utilizes reagents stored in reservoirs that hold sufficient material to test hundreds of samples. These reagent reservoirs can be manufactured at a lower cost, and LexaGene anticipates passing these savings onto the consumer so that better-advanced testing technologies can benefit the food industry.

Currently, LexaGene has completed the testing of their alpha prototype, and the development of the beta prototype is underway. In the coming months, LexaGene will finalize the design and software for the beta prototype, and continue to validate new pathogen tests relevant to the food industry. In Q3 2019, the company expects to start shipping beta prototypes to customers across the country so that LexaGene can gain vital insights into the needs and demands of the industry and receive customer feedback.

The bottom line is that LexaGene aims to provide the food safety industry with an advanced technology that simplifies and speeds up the testing procedure significantly. Dr. Regan emphasizes, "LexaGene's technology will provide another tool for food safety officers to better mitigate food contamination risks, and it will do so in a very fast and cost-effective way to promote wide-spread adoption in the industry." **OR**



Jack Regan