



## LexaGene's LX Technology Successfully Detects Pathogenic *E. coli* O157:H7 Bacteria from Romaine Lettuce Wash

*A Significant Step Toward Addressing a \$25B Market Opportunity*

BEVERLY, Mass. – Mar 5, 2019 – [LexaGene Holdings Inc.](#) (OTCQB: LXXGF; TSX-V: LXG) (the “Company”), a biotechnology company that develops genetic analyzers for pathogen detection and other molecular markers, announced today that their LX technology successfully detected *E. coli* O157:H7 in a blinded study focused on romaine lettuce wash.

In the United States, the O157:H7 strain of *E. coli* causes an average of 73,000 illnesses annually<sup>1</sup> with an annual cost of illness of \$405M.<sup>2</sup> In 2018, two separate outbreaks of *E. coli* O157:H7 contaminated romaine lettuce occurred, causing an estimated 272 illnesses and 5 deaths.<sup>3</sup> Historically, fresh and fresh-cut produce cause more foodborne illnesses than any other food commodity since many of the fresh produce products are not routinely treated with chemicals to kill microbes.<sup>4</sup>

Dr. Jack Regan, LexaGene's CEO and Founder, adds, “Our genetics-based technology is extremely sensitive and will return results in ~ 1 hour. The LX product line will minimize the time perishable food items spend in storage facilities and will help food companies avoid costly recalls and brand damage like we saw from the romaine lettuce recalls during 2018.”

Mr. Shawn Stevens, founding member of Food Industry Counsel LLC, the only law firm in the U.S. that exclusively represents food industry clients, states, “Food producers are increasingly paralyzed with fear over *E. coli* and other common food-borne pathogens. The average Class I recall costs ~ \$30M, and some recalls are even more expensive.<sup>5</sup> To add insult to injury, food producers, restaurants, and retailers are getting hit with lawsuits over these outbreaks. The food industry is continuing to look for ways to better protect itself. The industry has long relied on culture-based testing and the overwhelming sentiment is that genomic-based testing could greatly improve the ability and speed to detect potentially contaminated food items. This is why many forward-thinking food companies have expressed interest in working with LexaGene to evaluate their technology.”

Daryl Rebeck, LexaGene's President, comments, “We just announced a very successful veterinary clinical study where the LX technology was found to be 97.5% concordant with reference laboratory generated results. Here, we are demonstrating the value of our LX technology not only for the veterinary markets but also expanding our scope to address the dire technological needs in the food safety industry, which is estimated to be a \$24.6B market opportunity by 2023.<sup>6</sup> This is a great example of the versatility of LexaGene's technology.”

Dr. Regan concludes, “In the food industry, there is a strong demand for technology that can screen samples for multiple pathogens at once – and return results in as little time as possible. Many of the current testing methods generally take up 2 days for results. Our technology has the potential to provide food safety officers with sufficient information in just one hour allowing them to ship their perishable food items faster. As we move forward, we will continue expanding our screening capabilities in order to offer the food industry the most robust and comprehensive sample-to-answer solution possible.”

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<sup>1</sup> Emerg Infect Dis. 2005 Apr; 11(4): 603–609

<sup>2</sup> J Food Prot. 2005; 68:2623–2630

<sup>3</sup> <https://www.cdc.gov/ecoli/2018/o157h7-11-18/index.html>

<sup>4</sup> [cspinet.org/reports/outbreak-alert-2015.pdf](https://cspinet.org/reports/outbreak-alert-2015.pdf)



<sup>5</sup> GMA Study: Capturing Recall Costs, 2011: [https://www.gmaonline.org/file-manager/images/gmapublications/Capturing\\_Recall\\_Costs\\_GMA\\_Whitepaper\\_FINAL.pdf](https://www.gmaonline.org/file-manager/images/gmapublications/Capturing_Recall_Costs_GMA_Whitepaper_FINAL.pdf)

<sup>6</sup> <https://www.marketsandmarkets.com/PressReleases/food-safety-testing-market.asp>

### **About LexaGene Holdings Inc.**

LexaGene is a biotechnology company commercializing the very first easy-to-use, fully automated, genetic analyzer that is open-access. The open-access feature empowers end-users to target any genetic sequence of interest, whether of pathogen or human origin. To take advantage of the open-access feature, end-users simply need to load their own real-time PCR assays onto the instrument to customize their tests or run validated assays the company is developing. LexaGene's analyzers offer excellent sensitivity, specificity, and breadth of pathogen detection while returning results in about 1 hour. The company expects to sell its technology in the food safety and veterinary diagnostics markets, as well as to markets that need easy-to-use customized testing such as biotechnology and pharmaceutical companies, academia, and institutions performing water quality monitoring, aquaculture pathogen surveillance, and others.

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