



LexaGene Completes Development of Canine UTI Syndromic Panel

BEVERLY, Mass., Dec. 10, 2018 – LexaGene Holdings Inc. (OTCQB: LXXGF; TSX-V: LYG) (the “Company”), a biotechnology company that develops instrumentation and assays for pathogen detection, today announced the completion of a syndromic panel to detect urinary tract infection (UTI) in small animals. The assay is capable of detecting each of the eight most common pathogens responsible for the majority (95%) of all clinical canine UTI cases. LexaGene's UTI panel is designed to detect the causative pathogens with greater sensitivity and specificity than traditional culture-based detection which is prone to false positive results.

Currently, in the US alone, there are 90 million dogs, with an estimated 5.4 million tests performed for urinary tract infections. These infections can be caused by at least 69 different pathogens, but 95% of these infections are caused by just 8 pathogens. In 2017, the global dog diagnostic market was valued at over USD \$722.7 million, with the global companion animal diagnostics market expected to exceed USD \$3.2 billion by 2024.

To meet the need for better point-of-care diagnostics in veterinary hospitals, LexaGene is developing the LX2™ Genetic Analyzer that is designed to be placed in veterinary hospitals and to return results in just one hour, allowing veterinarians to make more informed patient care management decisions rather than relying on empiric diagnoses. LexaGene's genetic analyzer is designed to screen samples for as many as 28 targets at once, allowing for the detection of the vast majority of pathogens capable of causing syndromic illnesses as well as detection of some common antibiotic resistance factors.

The current standard for veterinary syndromic testing is to ship collected samples to a reference laboratory where test results are not available for 2 – 5 days. During which time, veterinarians empirically prescribe an antibiotic to prevent complications despite reports that only 17% of the samples tested for UTI are positive for a bacterial infection.

Dr. Sam Stewart, DVM, DACVECC, an emergency and critical care veterinarian at Boston West Veterinary Emergency and Specialty Hospital, states, “The increase in the incidence of antibiotic resistant strains is making our job as veterinarians harder as it is more difficult to initially put the patient on the appropriate therapy. As a result, we often see dogs days after their initial appointment that aren't responding to their prescribed therapy and we have to prescribe a new drug. This is not good for the dog nor the pet owner's finances. We are looking forward to receiving LexaGene's technology, which will return results in just one hour rather than the typical 2 - 5 day turnaround time of our current method. This will allow us to more often effectively treat right away, allowing dogs to recover faster and with reduced risk.”

Dr. Nathan Walsh, LexaGene's Director of Applications and Bioinformatics states, "Developing an assay to detect a pathogen is easy, however developing an assay that is also very sensitive and specific takes a lot of expertise and time. The former will result in many false positive and false negative tests, whereas the latter has completed a rigorous validation process that ensures top-notch performance. My team has been diligently working for months to verify the quality of all of our bacterial assays that make up the syndromic UTI panel and we are very pleased with the results. Having such a high-quality syndromic assay panel will bring out the best in LexaGene's microfluidic genetic analyzer.”

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About LexaGene Holdings Inc.

LexaGene is a biotechnology company developing the very first fully automated pathogen detection platform that is open-access. The open-access feature will empower end-users to target any pathogen of



interest, as they can load their own real-time PCR assays onto the instrument for customized pathogen detection. End-users simply need to collect a sample, load it onto the instrument with a sample preparation cartridge, and press 'go'. The instrument is expected to offer excellent sensitivity, specificity, and breadth of pathogen detection. The instrument will be able to process multiple samples at a time, in an on-demand fashion, returning results in about 1 hour. The company expects to sell its technology in the food safety market, veterinary diagnostics market and more.

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