



Xagenic Fuels Platform Expansion Strategy with Exclusive Technology Acquisition

Validated technology supports SNP detection and blood-based “liquid biopsy” diagnostic applications

Toronto, ON (June 1, 2015) – Xagenic, a molecular diagnostics company developing the lab-free Xagenic X1™ platform, today announced that it has acquired exclusive rights to a proprietary mutation detection technology developed at the University of Toronto.

This newly-acquired technology detects specific cell-free nucleic acids (cfNA) in blood plasma or serum, potentially enabling the Xagenic X1 platform to expand into “liquid biopsy,” or blood-based testing, in lieu of invasive tissue biopsy for oncology diagnostics and other instances in which an invasive tissue biopsy is not optimal or possible.

The University of Toronto-invented, electrochemical clamp assay will expand the diagnostic capabilities of the X1 platform powered by Amplified Redox Assay (AuRA). AuRA competes head-to-head with PCR performance with regard to sensitivity and specificity, but outperforms in speed, simplicity, size, ease-of-use, cost and compatibility with a physician’s office setting. The acquisition of this new technology expands the Xagenic X1™ platform capabilities to include the detection of SNPs and genetic mutations that aid in prognosis and personalizing of treatment for patients.

The clamp assay technology was applied to detect KRAS and BRAF gene mutations, commonly used for metastatic colorectal cancer and melanoma prognosis and therapy evaluation, as proof of concept in a recent article published in *Nature Chemistry*, by the inventors at the University of Toronto. The publication demonstrated that clamp assay technology accurately detected cfNA mutations directly from serum samples collected from cancer patients. The technology boasted a turnaround time of less than five minutes, delivering diagnostic results markedly faster than traditional PCR.

“Noninvasive monitoring of the molecular-level properties of patient tumors is an important capability for the delivery of personalized medicine and precision oncology,” said Dr. Shana Kelley, whose research group led the study at the University of Toronto. “By developing the electrochemical clamp assay technology, we’ve provided an alternative to PCR or sequencing that is cost-effective and simple to automate. In addition, as this month’s *Nature Chemistry* paper demonstrates, this new technology has a significant advantage over existing methods as there is no need for a blood purification step before the analysis is conducted.”

"The expansion of our platform to include clamp assay technology opens the possibility of using the X1 platform for noninvasive cancer mutation detection as an alternative to PCR or sequencing. While our initial research and development focus has been in reproductive health, this strategic acquisition enables us to explore and develop additional ways to expand the breadth of the Xagenic X1™ platform into other applications – oncology, prenatal diagnostics, mutation detection and beyond,” said Timothy I. Still, Chief Executive Officer of Xagenic. "We are excited to have obtained exclusive rights to this technology, and we are now working these capabilities into our long-term plan for the Xagenic platform."



The publication highlighting clamp assay technology in the detection of KRAS and BRAF mutations from patient serum, entitled, “An electrochemical clamp assay for direct, rapid analysis of circulating nucleic acids in serum,” was published on June 1, 2015. [An abstract of the paper may be found here.](#)

About Xagenic

Xagenic is a privately-held molecular diagnostics company developing the Xagenic X1™ platform, a revolutionary diagnostic system designed from its inception for use in a clinician’s office. The Xagenic X1 platform will allow users to perform lab-quality molecular diagnostic tests in the physician office. With a time-to-result of 20 minutes, the system is poised to transform the way healthcare is delivered. The Company is backed by Domain Associates, CTI Life Sciences Fund, the Ontario Capital Growth Corporation, BDC Capital and Qiagen. Xagenic was the 2014 Frost & Sullivan Point-of-Care Diagnostics New Product Innovation Leadership Award winner and the recipient of the 2015 Life Science Company of the Year award from Life Sciences Ontario. The Company is headquartered in Toronto with a San Francisco office. **For more information, please visit www.xagenic.com.**

For more information, contact:

Timothy I. Still
President & Chief Executive Officer
timothy.still@xagenic.com
1 (416) 363-1999 x1250

Media Contact:

Melanie Sollid-Penton
The Ruth Group
msollid@theruthgroup.com
1 (646) 563-7023