



- > Intuitive, user-friendly touch screen interface enables use by staff with minimal training.
- > Delivery of results in 20 minutes with 1-2 minutes of hands-on time.
- > Integrated, self-contained format designed for CLIA waiver.
- > Low-cost, single-use cartridges specific for individual diagnostic assays.
- > Profitable at current reimbursement rates.



The Xagenic X1™ Advantage

The Xagenic X1™ platform is a revolutionary diagnostic system that allows the user to perform molecular diagnostic lab-quality assays in the physician office. With a time-to-result of 20 minutes, this system is poised to transform the way infectious diseases are detected.

MARKET OPPORTUNITY

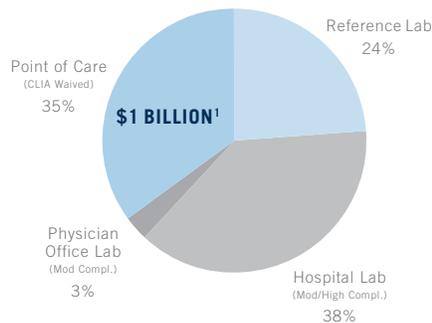
The point-of-care molecular diagnostics market is rapidly growing, with revenues from worldwide sales estimated to be ~\$1B by 2020.¹ 35% of molecular tests will be conducted at the point of care by 2020, up from less than 1% today.¹

X1 targets a \$2B underserved global market for CT/NG testing, with an expandable platform and near-term product pipeline that will address a > \$10 B market opportunity. X1 is on track to be the first-to-market in the U.S. for a POC MDx assay for CT/NG screening.

- > Chlamydia is the most common sexually transmitted disease (STD) caused by bacteria and the most common notifiable disease in U.S., with the CDC estimating 2.86 M U.S. cases annually
- > Gonorrhea is a bacterial STD and the second most commonly reported notifiable disease in U.S., with the CDC estimating 820,000 U.S. cases annually

1. Canaccord Genuity Equity Research. Industry Overview: Digging into the molecular point-of-care Dx space - sizing up the competitive landscape - ALR, CPHD and emerging privates. 4 October 2015.

US MDx Test Volume (%), 2020



INVESTMENT HIGHLIGHTS

- > First of its kind, rapid lab-free MDx system
- > Large market opportunity created by significant unmet medical need for point-of-care diagnostic solutions
- > Highly scalable, consumables-driven business model
- > Successful fundraising in a competitive MDx market
- > Sensitivity and specificity of PCR without the complexities of enzymatic testing
- > Simple technology leads to low COGS
- > Favorable reimbursement landscape
- > Clear regulatory path via 510(k) study

OUR BUSINESS

Xagenic, a privately-held company based in Toronto, was founded in 2010. The company employs more than 60 people, and is developing the Xagenic X1 platform – a revolutionary diagnostic system.

MANAGEMENT

- Shana Kelley, Ph.D.**
Founder & Chief Executive Officer
- Edward Jonasson, M.B.A., C.P.A., C.A.**
Chief Financial Officer
- Graham Jack, Ph.D.**
Vice President, Research
- Cindy Yip, B.Sc., B.Sc.E., M.A.Sc., Ph.D.**
Director of Product Development
- Dustin Dickens, B.Sc., M.Sc.**
Director of Systems Integration
- Gus Likogiannis**
Director of Manufacturing

BOARD OF DIRECTORS

- Erik Holmlin, Ph.D., M.B.A.
- Shana Kelley, Ph.D.
- Dion Madsen, B.Comm., C.F.A.
- Shermaine Tilley, Ph.D., M.B.A.
- Jesse I. Treu, Ph.D.

FINANCINGS (\$CAD):

- Seed: \$2.2M (May '10)
- Series A: \$10M (Jan. '12)
- Series B: \$40.5M (Dec. '13 - Apr. '16)
- Series C fundraise underway.

INVESTORS

- Domain Associates
- CTI Life Sciences Fund
- BDC Capital
- Qiagen
- Ontario Capital Growth Corporation

EASY TO USE – DIAGNOSTIC TESTING SIMPLIFIED

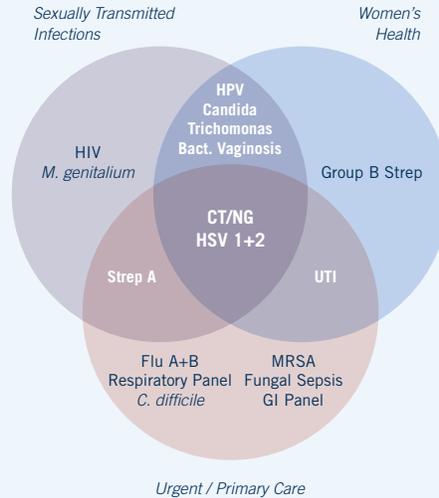
From its inception, the Xagenic X1™ platform was designed to be operated by users without advanced medical training. The Company will apply for a CLIA waiver to make this platform accessible to a U.S. market of more than 122,000¹ clinics and physicians' offices.



VERSATILE PLATFORM TECHNOLOGY

Xagenic X1 cartridges can be customized to detect a specific nucleic acid sequence from biologic material. The cartridge contains a proprietary sensor chip that enables direct disease detection, eliminating the need for enzymes that amplify and can therefore impact performance of the test. Xagenic is currently focused on human *in vitro* diagnostics, but the power of its proprietary AuRA™ direct detection technology could also be translated into solutions for the pharmaceutical industry, animal health and industrial applications.

Xagenic is initially developing a test for the detection of CT/NG (chlamydia and gonorrhea). CDC and USPSTF screening recommendations drive a large market of more than 25 million tests annually in the U.S.² There is strong clinical demand for point-of-care CT/NG tests, with 81% of physicians believing such a test will have a positive impact on patient quality of care by allowing faster treatment and reducing patient anxiety.³



2. J.P. Morgan North America Equity Research. Cepheid: Menu Expansion and First Mover Advantage Drive Sustainable Growth; Initiating at Overweight. 26 September 2012. 3. Xagenic Data on File. Survey (October, 2016).

Xagenic X1 Cartridge



A RAPID TIME-TO-RESULTS IN 20 MINUTES

Xagenic's X1 platform offers the advantage of fast, reliable results in the physician office with time-to-result of 20 minutes, which has the potential to improve clinical outcomes by providing immediate results and reducing complications and unnecessary direct costs.

B COST-EFFECTIVE

Because the Xagenic X1 platform is PCR-free, it does not need to support a biologically active enzyme to generate a diagnostic result, simplifying the engineering requirements for the platform and cartridge. The result is a simpler point-of-care solution that relies on more stable, 'off the shelf' reagents to deliver tests that rival the specificity and sensitivity of PCR. PCR-free detection leads to a simpler manufacturing process that reduces the cost of point-of-care diagnostics.

C SIMPLE, FRIENDLY, EASY-TO-USE, FULLY-AUTOMATED

Xagenic's X1 platform is designed with intuitive workflow specifically to maximize ease-of-use for non-medically trained physician office personnel, enabling accurate and fully automated, sample-to-answer diagnostic testing.

D SUCCESSFUL TESTING OF BETA X1 SYSTEM

Successful testing at an external clinical site confirmed the feasibility of point-of-care testing using the X1 system, and that sensitivity and specificity of the X1 CT/NG test is able to generate testing results comparable to gold-standard molecular tests run at centralized labs. Low rate of user errors (<3%) confirms suitability of system for clinical use. Results will inform the completion of the final design for the X1 and the development of assay menu for this first-in-class POC MDx system.

E PLANNED PIVOTAL CLINICAL TRIAL

Xagenic plans to complete work on the clinical- and commercial-grade X1 testing system in Q2 2017 and initiate a 9,000 patient pivotal clinical trial by Q3 2017 for FDA approval in late 2018. In the U.S., Xagenic will leverage the "Dual 510(k) Waiver by Application" process to submit a combined 510(k) and CLIA Waiver Submission for simultaneous FDA review.

