

Corporate Overview

MEDIA FACT SHEET

MEDIA CONTACT

Tracy Morris
tracymorrispr@gmail.com
650-380-4413

KEY FACTS

Founded:
2016

Location:
Burlingame, CA

Funding:
Khosla Ventures (Series A; undisclosed amount)
Stanford (StartX Fund)
DARPA (U.S. Defense Advanced Research Projects Agency)

Number of Patents:
3 pending (licensed exclusively from Stanford University)

Scientific/Clinical Validation:
6 peer-reviewed, published papers
5 clinical validation trials underway

LEADERSHIP

Tim Sweeney, MD, PhD,
Co-Founder and CEO

Jonathan Romanowsky,
Co-Founder and COO

Purvesh Khatri, PhD,
Co-Founder and Scientific Advisor

BOARD OF DIRECTORS

Tim Sweeney, MD, PhD,
Co-Founder and CEO,
Inflammatix

Steve Tablak,
Former Chairman and CEO,
GeneWeave Biosciences

Vijit Sabnis, PhD,
Venture Partner,
Khosla Ventures

Inflammatix, Inc.
863 Mitten Rd., Suite 104
Burlingame, CA 94010
www.inflammatix.com
@Inflammatix_Inc
(650) 797-1647

Our Company

Inflammatix is developing novel rapid molecular diagnostics tests that read the immune system to enable improved patient care and reduce major public health burdens. Our initial focus is on acute bacterial and viral infections, and sepsis, where our HostDx™ tests will allow physicians to quickly get the right treatments to the right patients, reducing morbidity and mortality, health system costs, and antibiotic resistance. The tests will target a collective market of an estimated 100 million patient visits each year in the United States alone.¹⁻⁴ While current tests diagnose infections by “finding the bug” – an approach that is limited because most infections never enter the bloodstream⁵ – **Inflammatix evaluates the body’s immune system response to provide more accurate and faster diagnosis.** Our scientific approach has been validated in 38 retrospective cohorts (N=2,452) and 6 prospective cohorts (N=1,833) have been enrolled. Results have been published in leading medical journals.⁶⁻⁸

The Unmet Clinical Need

Bacterial and viral infections are challenging to diagnose and current testing methods are inaccurate or too slow, resulting in delayed or inappropriate treatment. This harms patients and worsens the growing and costly global problem of antibiotic resistance (over 30% of antibiotic prescriptions in the United States alone are unnecessary¹). Further, determining when an infection progresses to sepsis, a life-threatening condition, has been a highly subjective and challenging process, resulting in delayed treatment for some patients and overuse of medical resources for others. The burden of care for sepsis is extremely high, with 250,000 deaths and \$27 billion spent in the United States alone each year.^{9,10}

Our Technology Breakthrough

Our novel, validated technology measures the expression levels of numerous host immune genes in blood samples and then applies proprietary algorithms to produce clinically actionable and timely results. Our tests are developed and validated using advanced bioinformatics that integrate multiple cohorts representing a broad spectrum of disease, geography, and patient demographics. This provides confidence that HostDx results are accurate and generalizable – regardless of infection type and severity, and patient population and setting.

UNNECESSARY ANTIBIOTICS

3 of 10
PATIENTS ARE GIVEN
ANTIBIOTICS BUT
DON'T NEED THEM



ANNUAL SEPSIS COSTS IN THE U.S.

250K
DEATHS

\$27B
IN HEALTHCARE
COSTS





Our Products

Our first products will accurately and rapidly enable improved diagnosis of acute infection and sepsis, respectively. Our tests, run on a standard blood draw, will be FDA-cleared and offered via sample-to-answer, PCR-based devices utilized at or near the point of care. Other potential applications for our immune response-based technology include diagnosis of tuberculosis, dengue fever, malaria, transplant rejection and autoimmune disorders.

HostDx FEVER



Will rapidly identify infections as bacterial or viral (targeted turn around time of less than **30 minutes**).

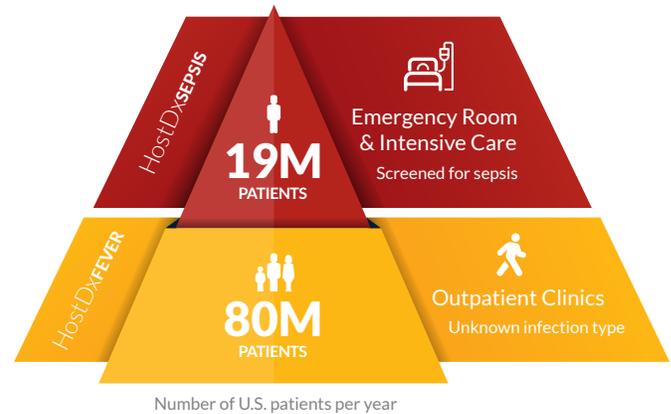


Early validation data for the test using over 1,000 patient samples from 24 cohorts shows a sensitivity of 96% and specificity of 76% for identifying **bacterial infections**. The test's negative predictive value (NPV) for ruling out bacterial infections is estimated to be 99% and 97% in flu-season and non-flu season respectively.⁶

Our Business Model

We will work with multiple diagnostic instrument partners to deliver our HostDx tests to market. This approach will allow us to match appropriate HostDx content to devices with ideal product-market fit and will enable rapid menu expansion on a given platform. We will work with our partners to validate and obtain regulatory approval for each test and launch the tests to clinics and hospitals in the United States and globally.

A ~\$7 BILLION COMBINED MARKET OPPORTUNITY¹¹



HostDx SEPSIS



Helps diagnose sepsis by detecting the presence of a bacterial and/or viral infection and its severity, with a targeted turnaround time of less than **60 minutes**.



Early validation data for the test suggest a sensitivity of 94% and specificity of 60% for identifying **bacterial infections** and 95% sensitivity and 64% specificity for identifying patients likely to have or develop **sepsis**. The test's NPV for ruling out sepsis was 98%.^{7,8}

REFERENCES:

1. Fleming-Dutra, et al. Prevalence of inappropriate antibiotic prescriptions among US ambulatory care visits, 2010–2011. *JAMA*. 2016;315(17):1864–1873.
2. Donnelly, et al. Antibiotic utilization for acute respiratory tract infections in U.S. emergency departments. *Antimicrob. Agents Chemother.* 2014;58(3):1451–7. Epub 2013 Dec 16.
3. Hasegawa K, et al. Infectious disease-related emergency department visits among children in the US. *The Pediatric Infectious Disease Journal*. 2015;34(7):681–685.
4. Goto, J, et al. Infectious disease-related emergency department visits of elderly adults in the United States, 2011–2012. *J Am Geriatr Soc*. 2016;64(1):31–36.
5. Coburn B, et al. Does this adult patient with suspected bacteremia require blood cultures? *JAMA*. 2012;308(5):502–511.
6. Sweeney TE, et al. Robust classification of bacterial and viral infections via integrated host gene expression diagnostics. *Sci Transl Med*. 2016;346(8):346ra91.
7. Sweeney TE, et al. A comprehensive time-course-based multicohort analysis of sepsis and sterile inflammation reveals a robust diagnostic gene set. *Sci Transl Med*. 2015;287(7):287ra71.
8. Sweeney TE, et al. Mortality prediction in sepsis via gene expression analysis: a community approach. *Nature Communications*. In press.
9. The Rory Stanton Foundation for Sepsis Prevention website (<https://rorystantonfoundationforsepsis.org/what-is-sepsis/>). Accessed 8-22-17.
10. Statistical Brief #225. Healthcare Cost and Utilization Project (HCUP). June 2017. Agency for Healthcare Research and Quality, Rockville, MD. www.hcup-us.ahrq.gov/reports/statbriefs/sb225-Inpatient-US-Stays-Trends.jsp
11. Company estimates.

