

# **Corporate Overview**

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#### **KEY FACTS**

Founded:

**Location:** Burlingame C

Investors: Khosla Ventures Stanford (StartX Fund) DARPA (U.S. Defense Advanced Research Projects Agen Think.Health

#### LEADERSHIP

Tim Sweeney, MD, PhD Co-Founder and CEO

Jonathan Romanowsky Co-Founder and COO

Oliver Liesenfeld, ME Chief Medical Officer

**Purvesh Khatri,** PhD

#### **BOARD OF DIRECTORS**

**Tim Sweeney,** MD, PhE Co-Founder and CEO

Steve Tablak Former Chairman and CEO GeneWeave Biosciences

Vijit Sabnis, PhD Venture Partner Khosla Ventures

Mike Rubin, MD, PhD Founder and CEO Northpond Ventures

Inflammatix, Inc.

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### 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<sup>™</sup> 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.<sup>1-4</sup> While current tests diagnose infections by "finding the bug" – an approach that is limited because most infections never enter the bloodstream<sup>5</sup> – **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.<sup>6-8</sup>

## 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 unnecessary<sup>1</sup>). 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.<sup>9,10</sup>

## 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.



#### ANNUAL SEPSIS COSTS IN THE U.S.





#### A ~\$7 BILLION COMBINED MARKET OPPORTUNITY<sup>11</sup>

## **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.



Number of U.S. patients per year

## 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**

Inflammatix plans to bring its HostDx tests to market and to also license its technology to diagnostic instrument partners to functionalize on their platforms. This approach will allow us to rapidly grow the clinical evidence base and provide broad patient access for the tests. We will validate and obtain regulatory approval for each test and launch the tests to clinics and hospitals in the United States and globally. HostDx Fever and HostDx Sepsis tests can achieve regulatory clearance (510(k) in the U.S.) via non-interventional clinical methods comparison, significantly reducing their time to market. Once cleared, interventional clinical utility studies will be conducted to demonstrate that with HostDx tests, physicians can better diagnose (and confidently rule out) acute infections and sepsis-thus improving patient care and lowering healthcare costs.

## 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 **30 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%.<sup>7,8</sup>

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