



**For Immediate Release**

**New Study Published in *Nature Communications* Suggests Sepsis Can Be Detected  
By Measuring the Immune System**

*Bioinformatics Approach Forms the Basis of Inflammatix's HostDx™ Sepsis Test*

Burlingame, Calif., February 15, 2018 --- [Inflammatix](#) announced findings from a new study published today in [Nature Communications](#) that suggest that diagnosing and determining who will likely develop sepsis can be improved with a data-driven approach that measures the immune system response to severe infection. A gene expression model used in the new study is a core component of HostDx™ Sepsis, a rapid molecular test that Inflammatix is developing to improve sepsis diagnosis. Sepsis, a dysregulated immune system response to infection, kills more than 250,000 Americans and costs the healthcare system more than \$27 billion annually in the United States.

“Current tools for sepsis identification and triage are imprecise, which often results in patients being overtreated or undertreated and wastes significant healthcare resources. The findings in this new study suggest that measuring immune dysregulation could indicate infection severity and significantly improve sepsis diagnosis,” said Tim Sweeney, M.D., lead author of the new paper, and cofounder and chief executive officer of Inflammatix. “The technology used in this study forms the basis of our HostDx Sepsis test, which we plan to bring into hospitals and urgent care settings as a rapid test to help reduce the global burden of sepsis.”

The new study evaluated gene-based models designed to accurately predict 30-day mortality in patients with sepsis at the time of enrollment. The models were developed and evaluated on over 20 cohorts from clinical studies involving a wide range of populations and settings. Inflammatix holds exclusive license to a pending patent from Stanford University for the institution's gene expression model from the new study.

The Stanford gene set licensed by Inflammatix, when combined with clinical severity scores (the current standard of care), demonstrated a substantial increase in prognostic power for 30-day mortality (i.e., an AUC increase of 9.8 percent, from 77 percent to 87 percent). This would translate to an ability to rule out approximately 20 percent more sepsis cases, compared to clinical severity scores alone. Such findings suggest this approach could help save substantial resources by avoiding unnecessary care.

“This new research, combined with previously published data, demonstrate the HostDx Sepsis test's ability to identify the presence of bacterial and/or viral infection and determine the likelihood of a patient having or developing sepsis. We believe this powerful combination will strongly drive the economic value of HostDx Sepsis, a point we look forward to validating in interventional trials,” said Dr. Sweeney.

**About the HostDx Sepsis Test**

The HostDx Sepsis test helps diagnose sepsis by detecting the presence of a bacterial and/or viral infection and determining its severity. The test uses novel, validated technology to measure the expression levels of numerous host immune genes in blood samples and then applies proprietary algorithms to produce clinically actionable and timely results. The HostDx Sepsis test's technology has been validated in 20 cohorts of over 1,000 patients, representing diverse populations and settings. The test has demonstrated a high sensitivity for organ dysfunction associated with sepsis (95 percent) and high negative predictive value (>98 percent).

**About Inflammatrix**

Inflammatrix is a molecular diagnostics company that is developing rapid tests that read the immune system, enabling improved patient care and reducing major public health burdens. The company's initial focus is on acute bacterial and viral infections, and sepsis, where its 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. While current tests diagnose infections by "finding the bug" – an approach that misses the 70% of infections that never enter the bloodstream – Inflammatrix evaluates the body's immune system response to provide more accurate and faster diagnosis. Its scientific approach has been validated in over 20 independent cohorts involving over 1,000 patients and published in leading medical journals. The privately held, Burlingame, Calif.-based company is funded by Khosla Ventures, Stanford-StartX Fund and the U.S. government's Defense Advanced Research Projects Agency (DARPA). For more information, please visit [www.inflammatrix.com](http://www.inflammatrix.com) and follow the company on Twitter (@Inflammatrix\_Inc).

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