The IRIDICA Platform

BACKGROUND

AN URGENT NEED FOR IDENTIFYING INFECTIONS EARLY

Sepsis, pneumonia and other infections claim the lives of millions of people globally each year. Oftentimes, it's because the clinicians do not have the diagnostic tools needed to rapidly identify the source of the infection and treat patients with appropriate therapies.

Currently, when a patient enters the hospital with an unknown infection, clinicians try to determine the cause using procedures that may take days, potentially leading to significant delays in appropriate treatment.

ABBOTT'S IRIDICA PLATFORM

Now available in Europe and other CE-Mark recognized countries, Abbott's IRIDICA platform has the potential to change the way serious infections are diagnosed.

The platform has the ability to:

- Identify more than 1,000 pathogens and the source of infections in less than six hours direct from sample.
- Offer the most comprehensive array of bacteriology, virology and mycology testing among current diagnostic techniques.
- Empower clinicians with information to quickly prescribe the most effective, targeted treatment and improve patient outcomes.
- Prevent the spread of hospital-acquired infections through faster identification and rapid treatment.

HOW IT WORKS

- **Step One**: A lab technician collects a patient specimen. Genetic material from this specimen is extracted and used for further testing. While most of the genetic material in the specimen is of human origin, some of it belongs to the pathogen that is making the person sick.
- **Step Two**: Multiple copies of the pathogen's genetic material are generated using a process called polymerase chain reaction (PCR).
- **Step Three**: A device called a mass spectrometer is used to determine the molecular weight of the amplified genetic material.
- **Step Four**: Sophisticated mathematical algorithms are used to identify the pathogen.

TIMELY RESULTS

The IRIDICA platform is designed to complete testing in less than six hours, giving clinicians the ability to obtain test results sooner than conventional methods. Faster results may significantly reduce the time to initiation of optimal targeted therapy in critically ill patients compared to culture-based testing methods, offers the potential to reduce length of hospital stay, reduce unnecessary resource expenditures and improve outcomes.

SCIENTIFIC ACHIEVEMENTS AND RECOGNITION

- The platform has potential for applications in infection control and bio-threat agent identification and initial research was funded by Defense Advanced Research Projects Agency (DARPA), Centers for Disease Control and Prevention (CDC), National Institute of Allergy and Infectious Diseases (NIAID), Federal Bureau of Investigation (FBI) and Department of Human Services (DHS), among others.
- In spring 2009, the technology helped the Naval Health Research Center in San Diego identify the first cases of a novel influenza virus outbreak in the U.S.
- In 2009, the technology received the 'Overall Gold Award,' the highest recognition at the Wall Street Journal Technology Innovation Awards.
- The technology has been used in multiple scientific research studies resulting in approximately 100 peer-reviewed, scientific publications.

ABOUT ABBOTT'S IBIS BIOSCIENCES

Abbott is a global leader in *in vitro* diagnostics and offers a broad range of innovative instrument systems and tests for hospitals, reference labs, molecular labs, blood banks, physician offices and clinics. The mission of Ibis Biosciences is to create diagnostic solutions that can provide faster, more actionable results for critical infections. Ibis Biosciences is focused on delivering an innovative approach to the detection and characterization of a broad array of microorganisms, contributing to Abbott's expanding role in molecular testing.

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