HAI LEADERSHIP
CEPHEID’S INTERNATIONAL HAI CONSORTIUM
Cepheid’s International HAI Consortium is a group of leading laboratories from around the world dedicated to the accurate diagnosis of Healthcare Associated Infections (HAIs). Created in 2008, the mission of the consortium is to answer critical scientific questions by collecting and characterizing a variety of unique HAI organisms during specific time periods. Analysis of these organisms not only facilitates a better understanding of their changing epidemiology but enables the development of new targets that can be used to optimize the performance of our tests.

The Challenge

HAIs are responsible for approximately 99,000 deaths each year in the United States alone\(^1\). In the EU MRSA infection rates in the acute care setting remain above 25%\(^2\). For Healthcare providers to effectively defend against this threat, they need the ability to detect both colonized and infected patients quickly and accurately.

Cepheid is the worldwide leader in molecular diagnostic solutions for HAIs. However, leadership requires on-going investment and innovation. Unlike diagnostic targets in other areas of the clinical laboratory, microorganisms continue to evolve — therefore, the tests that detect them must also evolve.

Due to a variety of factors, including the inappropriate use of antimicrobial agents, organisms like methicillin-resistant *Staphylococcus aureus* (MRSA) and *Clostridium difficile*, have become more difficult to treat and have evolved into major infection control issues for healthcare institutions around the world. The work of Cepheid’s International HAI Consortium has helped clarify the changing epidemiology of these pathogens and is facilitating a better understanding of how to detect them with increasing speed and accuracy.
Based upon objectives identified by the consortium leadership, member laboratories are asked to contribute relevant isolates over a specified period of time. To date, over 1000 isolates have been received and studied by the consortium.

Because novel strains can evolve anywhere in the world, the international reach of the consortium is an important element of its success. This unique access to a wide array of microorganisms ensures Cepheid’s leadership in providing state of the art HAI diagnostics, while answering key questions about the changing epidemiology and antimicrobial resistance patterns of critical HAI pathogens.

The work of Cepheid's International HAI Consortium results in two major benefits: a better understanding of the changing epidemiology of HAIs and development of highly accurate next generation Xpert® tests. The advancement of HAI knowledge remains an ongoing mission of the consortium. In fact, Dr. Tenover and colleagues presented their findings on the changing antimicrobial resistance patterns and strain types of MRSA in the United States at an international infectious disease conference.

In the 2013-2014 timeframe, Cepheid intends to obtain approval to market next-generation MRSA Xpert tests that will incorporate new targets from microorganisms collected and characterized by the consortium. These new targets will also form the basis for completely new additions to Cepheid’s HAI menu, such as the Xpert Multi-Drug Resistant Organisms (MDRO) assay.

Consortium Structure

Dr. Fred C. Tenover*, a noted microbiologist and authority on HAIs, is the Director of the International HAI Consortium, which currently includes over 30 laboratories in more than a dozen countries across the globe. Laboratories are invited to participate in the consortium based on their scientific expertise, their interest in molecular epidemiology, and their dedication to improving the field of molecular diagnostics.

Fred C. Tenover Ph.D., D(ABMM) Senior Director for Scientific Affairs and Consortium Director

* Dr. Tenover is uniquely qualified to direct Cepheid’s HAI consortium particularly given his experience in his former jobs as Distinguished Consultant and Director, Office of Antimicrobial Resistance, at the Centers for Disease Control and Prevention in Atlanta, GA as well as his position as the former Director of the World Health Organization Collaborating Center for Global Antimicrobial Resistance Monitoring.
The molecular revolution is here.

A better way.

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Cepheid’s HAI Menu & Evolving Pipeline

The HAI consortium provides information on evolving drug resistant organisms and their prevalence. This allows us to improve and broaden our HAI product offering. Cepheid has the most comprehensive HAI assay menu available on one platform. Through the consortium, we will continue to expand our products with the most relevant, accurate and rapid tests available worldwide.

References:
1. CDC Public Health Reports, March-April 2007, Vol. 122
4. Comparison of nasal and blood culture isolates of methicillin-resistant Staphylococcus aureus (MRSA) from Patients in US hospitals. 50th Annual ICAAC, Boston, MA, 2010