

QuantaMatrix unveils world's fastest antimicrobial testing technology backed by research paper in Nature

- **New test takes average of 13 hours to identify correct treatment compared to several days with current methods**
- **Innovative uRAST technology set to revolutionize sepsis treatment and combat antibiotic resistance**

Seoul, South Korea, August 19, 2024 – QuantaMatrix (KOSDAQ: A317690), a leader in clinical microbiology diagnostics, today announces the development of 'uRAST' (Ultra-Rapid Antimicrobial Susceptibility Testing), the world's fastest all-in-one antimicrobial testing technology. This breakthrough has been published in the prestigious scientific journal [Nature](#), marking a significant achievement for the diagnostic industry in South Korea.

Sepsis, a life-threatening condition where timely treatment is critical, has a 'golden hour' for intervention. Every hour of delay in administering the correct antimicrobial treatment decreases patient survival by 9%, leading to a 30% mortality rate within 30 days.

Traditional antimicrobial testing methods take days, often too long for effective sepsis treatment. The uRAST technology eliminates the need for the initial blood culture process, providing accurate results within just 13 hours after blood sampling. This advancement enables doctors to prescribe the right antibiotic faster, potentially saving thousands of lives.

"The *Nature* publication on uRAST highlights its potential to become the new standard in clinical microbiology. By drastically reducing testing times, we aim to lead the global market in both antimicrobial susceptibility and blood culture testing, which together represent a market value of approximately \$20 billion," said Sunghoon Kwon, CEO of QuantaMatrix.

uRAST boasts a 94.9% accuracy rate, aligning closely with existing methods. It also excels at detecting small quantities of bacteria in the early stages of infection, a task that has previously been almost impossible. When tested at Seoul National University Hospital, uRAST reduced the time from positive blood culture results to optimal antimicrobial prescription by an average of 13 hours compared to current methods which typically take 48-72 hours. This time reduction includes both testing and the often-overlooked waiting periods between different steps in traditional processes.

About the Global Antibiotic Resistance Crisis

Antibiotic resistance is a pressing global issue, with [1.27 million deaths in 2019](#) alone due to resistant infections—a number expected to surpass ten million by 2050, outpacing cancer-related deaths. The

World Health Organization (WHO) has warned that antibiotic resistance could soon rival the impact of the COVID-19 pandemic.

About QuantaMatrix

QuantaMatrix is dedicated to advancing clinical microbiology diagnostics through innovative technologies. It has successfully established a distribution network all over Europe. As it continues to expand, QuantaMatrix is now addressing the Middle East and Africa. It specializes in *in vitro* diagnostics using microbial diagnostics technology.

QuantaMatrix's flagship product is its dRAST™ solution, a direct Rapid Antimicrobial Susceptibility Testing system, which can find the optimal antibiotic in as little as four hours following a positive blood culture. The dRAST solution uses various patented technologies related to optics, microfluidic engineering and artificial intelligence. Compared to conventional methods, dRAST effectively shortens the time to results by two to three days.

With uRAST, the company is poised to make significant contributions to public health, particularly in the fight against antibiotic resistance.

These solutions are available in Korea, Europe and the Middle East, where QuantaMatrix has a distribution network spanning 26 countries.

QuantaMatrix is a public company listed on the Korean KOSDAQ market under #317690.

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