Stilla Technologies offers a digital PCR solution to detect Covid-19 infections more sensitively and more accurately than the current RT-PCR method

The Naica™ system, Stilla Technologies’ innovative digital PCR solution, combined with a Covid-19 detection kit, is able to quickly, accurately and reliably identify the SARS-CoV-2 virus, which is responsible for Covid-19, as well as measure its viral load. At the moment, the Naica system is mainly being used for research, and the company plans on expanding its use to diagnosis.

Paris, May 5, 2020 - Stilla Technologies, a leading French provider of pioneering solutions for high-precision genetic analyses, just announced that its digital PCR solution, the Naica™ system, which can reliably detect the SARS-CoV-2 virus and measure its viral load, is now readily available to all research centers and hospitals involved in the fight against Covid-19.

Currently, SARS-CoV-2 infections are being diagnosed through a method called real-time reverse transcription polymerase chain reaction (RT-PCR). However, this technique fails to reliably detect low viral loads, which can occur when patients are mildly infected or in case of defective sampling. The difficulty to properly detect the virus with RT-PCR in these instances would partially explain why some Covid-19 patients test negative for SARS-CoV-2. Stilla’s solution based on digital PCR (dPCR), a more accurate and sensitive method than RT-PCR, would make it possible to cut down on these false negative results, which currently hamper efforts to contain the re-emergence of the disease.

“We are proud to be part of the fight against Covid-19. Our close collaboration with Apexbio, our partner in China, allowed us to quickly develop a solution to detect Covid-19 through digital PCR, by using our Naica system. This solution was launched last February by Apexbio in China and in mid-March by Stilla in Europe,” said Rémi Dangla, Cofounder and CEO of Stilla Technologies.

Since the beginning of the pandemic, more than 15 key Chinese institutions (the Center for Disease Control & Prevention, the First Affiliated Hospital of Zhengzhou University, etc.) have been using the solution developed by Stilla Technologies. They were able to successfully carry out advanced testing for the detection of SARS-CoV-2 in more than 1,200 samples from patients for whom RT-PCR tests were giving unsatisfying results.

“Naica digital PCR is easy to use and provides higher sensitivity and reliability. We installed one Naica system in early March, and we use it for COVID-19 testing”, said a customer of Hunan CDC.

“We have one Naica system and we use it for COVID-19 research at this moment to help defeating infections”, said a customer of the Virology Institute.

The rapid launch of the Naica system was made possible by the excellent relationship Stilla Technologies has been building for years with China – its second largest market – through the company’s local partner, ApexBio / Cycloud, and investor, TusPark Holdings. At the latter’s initiative, Stilla Technologies donated several Naica systems to China at the beginning of the outbreak. Since the end of March, Stilla Technologies has also been testing its solution in several French hospitals, including the Department of Microbiology of Hôpital Européen Georges-Pompidou (HEGP), in Paris.
“The clear advantage of dPCR over conventional RT-PCR techniques, in terms of sensitivity and reliable viral load measuring, could be a key asset in the virological exploration of COVID19,” said Dr. Hélène Père, from the Department of Microbiology of Hôpital Européen Georges-Pompidou (HEGP).

These research collaborations confirm that digital PCR, combined with the Covid-19 detection kit from Stilla Technologies, allows a more precise and sensitive identification and quantification of Covid-19 than reference tests by RT-PCR. Indeed, the gain in sensitivity brought by digital PCR made it possible to reveal false negatives obtained in RT-PCR.

About Stilla’s Naica System

The Naica System is a highly sensitive digital PCR solution that runs on the company’s next-generation genetic testing and nucleic acid quantification technology, Crystal Digital™ PCR. The Naica System is uniquely capable of characterizing multiple types of nucleic acids with its three-color detection capability. Its ease of use and fastest time to results — in two hours and 30 minutes — set this innovative technology apart in the digital PCR market. The Naica System supports a wide-range of genetic tests and molecular biology assays — including liquid biopsy tests for cancer diagnostics, viral load quantification, pre-natal testing, and GMO detection. Overall, the Naica System’s superior performance makes it a preferred technology for precision medicine research and therapeutic monitoring.

About Stilla Technologies

Founded in 2013 at Ecole Polytechnique, Stilla Technologies is a Paris-based European life sciences company that focuses on accelerating the development of next-generation genetic tests by providing a ground-breaking and flexible digital PCR (dPCR) solution: the Naica System. Taking advantage of cutting-edge microfluidic innovations, Stilla aims to make dPCR a lab commodity for all areas of the life sciences. Stilla actively advises and supports its customers worldwide through its dynamic and multidisciplinary R&D team, with expertise spanning from microfluidics to chemistry, including molecular biology and AI.  

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