



Leading Dutch biochip companies accelerate development of fast and reliable COVID-19 test

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Enschede, the Netherlands,

Surfix B.V., together with its shareholders Qurin Diagnostics B.V. and LioniX International B.V., already successfully developing bio-photonic nanochips for cancer detection and other applications, today announces an accelerated development plan to allow mass-scale COVID-19 diagnosis and immunity detection with the financial support and in close collaboration with PhotonDelta.

The desktop testing device will yield reliable test results within 5 minutes and is scheduled to be available for commercial exploitation within 6-9 months. The device will be built around a photonic biochip using LioniX' mature and proven silicon nitride based integrated optics technology (TriPleX™), a key technology within the PhotonDelta ecosystem. The surface functionalization and biochemical assay development are provided by Surfix and Qurin Diagnostics, respectively. The combination of these disciplines enables a successful, fast and accurate virus detection platform. The development will be supported by and in tight collaboration with Photon Delta (a Dutch public private partnership). The PhotonDelta support will be both in co-funding as in further future upscaling and exploitation.

Qurin Diagnostics, Surfix and LioniX International are already working together closely on early cancer detection and have realized an ultra-sensitive biochip sensor array which will be applied for early cancer detection using urine as a liquid biopsy

Coenraad K. van Kalken, CEO of Qurin Diagnostics, said *"This collaboration confirms our strategic vision that the ultrasensitive biochip we're jointly developing for mass scale, low-cost cancer screening is broadly applicable in biological agri-food markets as well as in other biomedical fields. All these fields need highly accurate molecular diagnosis technology at lower cost than complex and labor intensive molecular technologies, currently used."*

Luc Scheres CTO of Surfix said *"We have developed specific nanocoatings which enhance the sensitivity, limit of detection and reliability of the photonic biochip. Of course every application comes with its own specific challenges and demands, so close collaboration with experts from other disciplines is essential to successfully develop a diagnostic test. Therefore, we are happy to strengthen our collaboration with LioniX International and Qurin Diagnostics for the accelerated development of a corona virus test."*

“The TriPleX™ platform has shown its capabilities and possibilities for high volume cost effective cancer diagnostics and investing in this new application is not merely a commercial driven choice, but also driven by societal importance. Since we have a solid technology base and reliable collaboration partners, who also enabled the cancer diagnostics measurements, we have large confidence in realizing a successful COVID-19 test.”, said Arne Leinse, CEO of LioniX International.

“This is a great example of a joint effort of partners in the PhotonDelta ecosystem to develop meaningful, low costs and effective solutions enabled with integrated photonics technology. The initiative builds upon our knowledge on ultra-sensitive biochips, which might be of utmost relevance in detecting the current COVID-19 crisis. Bio sensing is one of the long-term development programs (roadmap) within PhotonDelta where industry, universities and the entire PhotonDelta ecosystem work together on next generation solutions and testing devices on viruses and other diseases”, said Ewit Roos, CEO of PhotonDelta

About Qurin

Qurin is a diagnostic company focusing on the development and commercialization of a diagnostic platform for early detection of cancer in urine. At Qurin we are convinced that an easy to use, affordable, fast and accurate diagnostic device for mass screening will detect the disease in an early stage thereby significantly increasing the survival. To reach this goal we are simultaneously developing a photonic based diagnostic instrument and biomarker panels for numerous subtypes of cancer in collaboration with academic and industrial partners.

www.qurin.com

About Surfix

Surfix is a highly innovative SME developing and providing custom-made nanocoatings for micro- and nanodevices in life science applications. Devices like biosensors and microfluidic chips are key components of solutions for global challenges in healthcare, food, and environment. Surfix' proprietary nanocoating technologies not only yield excellent surface properties, but also enable patterning with superior spatial control, allowing our customers to exploit the full potential of their devices. Surfix provides a wide range of services from coating of demonstrator devices to technology transfer and IP licensing.

www.surfix.nl

About LioniX International

LioniX International is a leading global provider of customized microsystem solutions, in particular integrated photonics-based. LioniX International provides customized solutions for OEMs and system integrators, from design to fully assembled modules, by vertical integration and in scalable production volumes. Technology leadership is secured by maintaining the strong IP position. LioniX International has driven the technology development and commercialization of photonic integrated circuits for a suite of applications since 2001. The vertical integration allows a focus on volume microsystem applications for worldwide customers by enabling more rapid advancement from R&D concepts towards high-volume integrated solutions. The full, vertical integration allows a true one-stop-shop service to the customers.

www.lionix-international.com

About PhotonDelta

PhotonDelta consists of a cohesive cluster of companies, including LioniX International, and knowledge institutes who have partnered and work intensively together to collectively offer state-of-the-art design, development and (volume) manufacturing of integrated photonics technologies and components. Such a collective and long-standing effort has led us to acquire unique competences and assets in the domain of customized PICs and PICs-based modules/subsystems. By working together within a mission-driven ecosystem, we innovate, reduce time-to-market and create economy of scale that benefits us all. PhotonDelta Foundation provides access, knowledge, business development and funding to our partners. Our goal is to facilitate companies and further establish growth of the integrated photonics cluster by 2026. Funding is made possible by substantial financial contributions from our partners as a result of our 'partnerconvenant PhotonDelta' and the "RegioDeal Brainport Eindhoven".

www.photondelta.eu

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