

## **Axithra, a spin-off of imec and Ghent University, raises 10M Euro**

*New drug measurement and monitoring technology for accurate assessment of drug concentrations in blood, paves the way for personalized and faster care*

Leuven and Ghent (Belgium), 5 September, 2023 – Axithra, a new spin-off of imec and Ghent University, today announced a 10 million euro seed round, securing the first two years of R&D. Axithra develops a technology platform for therapeutic drug monitoring (TDM) to quickly and accurately measure drug concentrations in a patient's blood.

The seed round led by imec.xpand and co-led by Kurma Partners amounted to 10 million euros, supported by a strong investor base including Qbic, Noshag, White Fund, and Wallonie Entrepreneurs, as well as two corporates, i.e. Hamamatsu Photonics and Werfen Diagnostics.

For many drugs, the correct dosage is crucial to ensure the optimal effect. It is a constant focus in hospital units with seriously ill or debilitated patients, who often exhibit physiological changes over time, such as those in the intensive care or oncology unit. When administering insufficient doses, a drug loses effectiveness, while excessive doses may cause toxic, potentially fatal, side effects. Axithra will develop a therapeutic drug monitoring (TDM) platform based on optical technology. It aims at fast and accurate measurement of drug concentrations in blood, enabling timely adjustments of dosages, when needed.

As a first application the spin-off will deploy its technology to measure the concentration of beta-lactam antibiotics in a patient's blood. This class of antibiotics is by far the most commonly used to treat or prevent bacterial infections and is administered to millions of intensive care patients each year. Axithra's platform will ensure that treatments can be optimally tailored to the individual patient. Over time, other drug classes will be incorporated in the pipeline.

Prof. Jan De Waele, intensivist at the Ghent University Hospital and President-elect of the European Society of Intensive Care Medicine, commented: "Given the large variation between patients in intensive care, this development will enable us to better treat our patients with severe infections, and protect them from possible harm. Because current solutions have long turnaround times, Axithra's platform will help us to intervene more quickly, improving outcomes of severe infections and reducing the length of stay of patients in the intensive care unit, hereby decreasing costs."

Axithra is a perfect example of how processes developed for the semiconductor industry are now leveraged in the life sciences domain, a promising area where imec has built a strong R&D portfolio in recent years. Axithra combines imec's semiconductor process knowledge with the unique photonics expertise of the Photonics Research Group, an associated imec lab at Ghent University. Prof. Roel Baets explained: "Our Raman-on-chip technology is the basis of Axithra's solution. Raman spectroscopy is a commonly used technique for accurately identifying and quantifying molecules. Integration on a photonics chip makes this technique much more sensitive."

Dr. Leander Van Neste, CEO of Axithra commented: "I am delighted with this broad, complementary investor base, including the regional and strategic support. I am convinced that together we can build out our TDM platform to be a true game-changer. Due to the simplicity and speed of our platform, we can customize medication for each individual patient, even with rapidly changing conditions, and in all sorts of environments, including outside the traditional hospital lab."

Frank Bulens, partner at imec.xpand added: "Great to see such a broad investor support for this new spin-off from imec and UGent. This substantial seed round will allow the startup to achieve its prototype proof of concept milestone, a good basis for raising further financing to advance its product to the market". "We are confident that with a dynamic entrepreneurial team, Axithra will be able to provide physicians with a breakthrough TDM solution for a personalized and optimized patient treatment. Kurma Partners, through its specialized fund Kurma Diagnostics2, is pleased to support Leander and the Axithra team in this project", commented Alain Horvais, partner at Kurma Partners.

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### **About Axithra**

Axithra is a spin-off from Ghent University and imec, developing a platform to quickly and accurately measure and monitor drug concentrations in blood, paving the way for treatments tailored to the specific needs of each individual, at any given time. The first application is focusing on personalizing beta-lactam antibiotics treatments in the intensive care unit. The Company's platform is based on proprietary optical and photonics technology and will allow physicians to optimize patient care by enabling personalized treatments. For more information, visit [www.axithra.com](http://www.axithra.com) or mail to [info@axithra.com](mailto:info@axithra.com).

### **About imec**

imec is a world-leading research and innovation center in nanoelectronics and digital technologies. imec leverages its state-of-the-art R&D infrastructure and its team of more than 5,500 employees and top researchers for R&D in advanced semiconductor and system scaling, silicon photonics, artificial intelligence, beyond 5G communications and sensing technologies, and in application domains such as health and life sciences, mobility, industry 4.0, agrofood, smart cities, sustainable energy, education, ... imec unites world-industry leaders across the semiconductor value chain, Flanders-based and international tech, pharma, medical and ICT companies, start-ups, and academia and knowledge centers. imec is headquartered in Leuven (Belgium) and has research sites across Belgium, in the Netherlands, and representation in three continents. In 2022, imec's revenue (P&L) totaled 846 million euros.

Further information on imec can be found at [www.imec-int.com](http://www.imec-int.com).

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### **About Ghent University**

Ghent University is one of the major universities in the Dutch-speaking region of Europe. It distinguishes itself as a socially committed and pluralistic university in a broad international perspective. 80 faculty departments, spread over 11 faculties, offer high-quality courses in every one of their scientific disciplines. Ghent University strategically invests in multidisciplinary clusters to expand its industrial R&D network. Key technology transfer activities include industrial collaboration programs, IP licensing and spin-off creation. Over the past five years, this joint effort has resulted in 566 patents, the establishment of 35 spin-off companies and an intensive collaboration with companies.

[www.UGent.be/en](http://www.UGent.be/en)

### **About Ghent University Hospital**

Ghent University Hospital is one of the largest and most specialized hospitals in Flanders. 6.725 employees work tirelessly each and every day to provide over three thousand patients with the best care. Ghent University Hospital and the Faculty of Medicine and Health Sciences at Ghent University jointly invest in scientific research and education. This is how the hospital helps to develop the healthcare of the future. More information on [www.uzgent.be](http://www.uzgent.be).

### **About imec.xpand**

imec.xpand is an independently managed value-add venture capital fund that focuses on hardware-based nanotechnology innovations where imec technology, expertise, network and infrastructure will play a differentiating role. imec.xpand is currently managing over 350 mio EUR in capital.

### **About Kurma Partners**

Kurma Partners is a key European Venture Capital firm specialized in healthcare, with more than €700 million under management, with two dedicated franchises: “Kurma Biofund” focused on venture investments in therapeutics (current active fund KBIII) and “Kurma Diagnostics” focused on venture investment in diagnostics and digital health (current active fund Kurma Dx2). Kurma Partners has launched its first “Growth Opportunity Fund” further to its first closing in early 2022. Kurma Partners is part of the Eurazeo Group.

### **About WE Life Sciences**

Drawing on Wallonia's inherent strengths, WE Life Sciences invests in its "Local Heroes": researchers and entrepreneurs aiming to harness their innovation for the establishment of a more sustainable and equitable global economy, with firm roots in Wallonia.

WE Life Sciences fosters diversity and cross-fertilization in the broadest sense. It invests in companies operating within the health sector, spanning diverse stages of development and grounded in a wide range of technologies, addressing a multitude of indications or pathologies.

WE Life Sciences is a pioneering, forward-looking and patient investor that engages from the earliest stages with the most promising companies, guided by a long-term vision that surpasses the typical venture capitalist horizon.

For more information, please visit: [www.wallonie-entreprendre.be](http://www.wallonie-entreprendre.be)

### **About Qbic**

Qbic is an inter-university venture capital fund focusing on creating impact through the transformation of technological breakthroughs into sustainable business.

Qbic is a sector-agnostic seed and early-stage venture capital fund, supporting young innovative companies that valorize research from Qbic's knowledge partners. The fund typically participates in the first external investment round of a company and continues to support and invest in these companies throughout their growth.

More information: [www.qbic.be](http://www.qbic.be)

### **About Hamamatsu Photonics**

Hamamatsu Photonics is a world-leading manufacturer of optoelectronic components and systems. Their corporate philosophy stresses the advancement of photonics through extensive research to yield state-of-the-art products. They provide solutions for various applications across the photonics industry, including analytical, consumer, industrial, and medical instrumentation. Through Hamamatsu Photonics Corporate Venture Capital Co., Ltd, they provide early-stage investments into startups that anticipate the needs of our future society and propose novel solutions using photonics. Learn more at [hamamatsu.com](http://hamamatsu.com) and [cvc.hamamatsu.com](http://cvc.hamamatsu.com).