

## **Mekonos Enters Partnership Agreement with Accelerated Biosciences to Develop and Commercialize Engineered Human Trophoblast Stem Cells (hTSCs) for Biomanufacturing**

~ Mekonos' silicon nanoneedle-based delivery platform will provide Accelerated Bio with high efficiency, high viability cell engineering – including the precise and gentle delivery of multiplexed genetic cargo into its pluripotent hTSCs ~

~ Accelerated Bio's ethically derived and multi-functional hTSCs offer manufacturers a scalable and robust foundation for next-generation biomanufacturing ~

~ Using Mekonos' technology, Accelerated Bio will bypass the limitations of conventional delivery approaches like electroporation, for improved non-viral delivery into its fragile stem cells ~

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ALAMEDA, Calif.--(BUSINESS WIRE)--Mekonos, Inc., a biotech platform company building the future of cell engineering on a chip, today announced it has entered into a partnership agreement with Accelerated Biosciences Corp. ("Accelerated Bio") to codevelop a powerful, new manufacturing cell line based on Accelerated Bio's human Trophoblast Stem Cells (hTSCs) and Gene Engineered Multi-Sites (GEMS) technology.

"We are delighted that Accelerated Bio recognizes the long-term potential of our Mekanofection™ platform to unlock delivery of multiplexed payloads into challenging cell types which are not readily accessible with conventional approaches," said Anil Narasimha, PhD, co-founder and chief executive officer of Mekonos. "Our platform brings together semiconductor, microfluidic, and surface chemistry technologies to enable the full potential of gene editing for cell therapies and cell engineering through the precise and gentle delivery of a wide variety of molecular cargo into individual cells. We look forward to working closely with the team at Accelerated Bio to enable the development of a next-generation cell line for biomanufacturing from their unique stem cell source."

Accelerated Bio out-licenses its commercial grade hTSC platform for drug discovery, therapy development, biomanufacturing and toxicology. The hTSC platform is the earliest ethically sourced pluripotent stem cells that are naive, powerful, lively and have high plasticity. hTSCs also naturally perform functions of many cell types and are immune privileged. As such, the hTSC platform is an ideal starting material and significantly increases go-to-market potential for a new generation of precision medicine applications.

"We are excited to collaborate with Mekonos to more efficiently and effectively combine our GEMS technology to create stable genetic integration sites with our hTSCs," said Yuta Lee, founder and chief executive officer of Accelerated Biosciences Corp. "Until now we have struggled to find a good way to insert the GEMS genetic construct into hTSCs without impacting cell health and viability. Now, using Mekonos' delivery platform, which is very gentle on cells, we will be able to develop a cell line which will offer superior manufacturing scale-up and robust growth compared to existing cell lines."

Cell engineering holds the potential to accelerate biopharma innovation across multiple frontiers – biomanufacturing, cell therapies, drug screening, and disease modeling. However, advanced cell line development is constrained in the industry by a lack of efficient and safe payload delivery methods. Both viral vectors and electroporation-based biomolecule delivery have numerous challenges, including cell viability issues, cargo size limitations, cell type restrictions, a lack of dose control, and a lack of precision. These limitations compound and can cause cell functionality compromises and performance issues downstream, given the lack of consistency in engineered cells and inefficient scale-up.

“Resolving these issues with better manufacturing and delivery techniques is a ‘holy grail’ that has remained out of reach for the biotechnology industry – until now. Mekonos recognizes there is a better way, and we are rising to the challenge,” Narasimha added.

#### **About Mekonos, Inc.**

Mekonos is using its proprietary cell-engineering platform to create a future where personalized medicine is accessible to all. By uniting three core technologies to teach individual cells how to fight disease, Mekonos’ platform is overcoming present day obstacles by enabling unprecedented precision in the delivery of multiplexed cargo into even the most fragile of cells.

This approach offers collaborators a scalable solution to seamlessly move from research and discovery applications all the way through manufacturing and opens the doors to a new world of possibilities, including personalized medicine in a point-of-care setting.

Mekonos is headquartered in Alameda, CA and backed by leading healthcare and technology investors. For more information, please visit [www.mekonos.com](http://www.mekonos.com) and follow us on [LinkedIn](#).

#### **About Accelerated Biosciences Corp.**

Accelerated Bio represents a transformative approach in the healthcare sector by leveraging the groundbreaking potential of hTSCs to revolutionize precision medicine. Originating from an ethical source, the hTSCs possess the extraordinary ability to perform functions of many cell types with added genetic stability, natural immune privilege, and high expansion capacity. The hTSCs are setting the stage for groundbreaking precision medicine applications. Accelerated Bio’s large, robust and encumbrance-free intellectual property estate ensures Accelerated Bio’s and its partners’ freedom to innovate.

Accelerated Bio is headquartered in Philadelphia, PA and is focused on commercializing its hTSC platform with its partners. For more information about Accelerated Biosciences, visit [www.acceleratedbio.com](http://www.acceleratedbio.com) and follow us on [LinkedIn](#).

## **Contacts**

Tim Hay

The Grace Communication Group

[tim@gracegroup.us](mailto:tim@gracegroup.us)

(510) 593-0285