Companies Join Forces to Address Urgently Needed Quality Control of CRISPR Genome-editing

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SAN DIEGO (PRWEB) January 21, 2020 -- COBO Technologies and Cardea Bio partner to bring solutions to challenges with the precision of Genome editing. The partners have agreed to co-develop and market a portfolio of CRISPR QC products and services for quality control (QC) of CRISPR research, agricultural, and pre-clinical programs. Over the longer-term, the parties aim to develop a COBO branded QC device based on Cardea's CRISPR-Chip™ QC technology for use before and after genome-editing in the pre-clinical setting.

With the new strategic partnership, the Danish company COBO Technologies, which specializes in quality control of CRISPR-modified cells of any kind, will collaborate with San Diego-based (bio)technology infrastructure company Cardea to bring powerful QC products and services for better genome-editing applications to the global life science and agriculture markets.

The partners have begun product development of a CRISPR QC tool based on Cardea's innovative biology-gated transistors™. By adding CRISPR-Chip QC capabilities to the Cardean transistor infrastructure, the teams will be able to achieve sensitive and fast quality control of CRISPR experiment subparts (e.g. gRNAs, Cas systems and versions, on-and-off target activity) -and the resulting genome modified cells.

"There is a rapidly increasing need for better quality control of genome-edited cells. With this new QC tool based on CRISPR-Chip, researchers can easily confirm the precision of their CRISPR experiments, for example, detection of potential off-target events," says Jens-Ole Bock, CEO and founder of COBO Technologies.

COBO's tools include the proprietary CRISPR InDel Profiling Platform (CIPP™) developed for in-depth detection of genome editing outcomes and PIPPR® created for extensive proteome expression profiling after CRISPR edits. Beginning in 2020, the strong sales team at Nanosens (a wholly-owned Cardea subsidiary) will market and sell COBO's services and products for quality control in the US.

"This is a unique opportunity for us to enter the global markets together with a very competent partner that is already a part of the global CRISPR QC conversation," says Mr. Bock.

COBO and Cardea began the development of a QC CRISPR-Chip at the start of 2020.

"Cardea and its Innovation Partners are consistently finding new ways to leverage our graphene-based, biology-gated transistor infrastructure to help the world Conduct Biology™," says Michael Heltzen, CEO of Cardea. "In this example, our proprietary, award-winning CRISPR-Chip technology provides our partner with a unique and transformational solution to gain near-instant insight into what CRISPR is doing and whether the

experiment is going according to plan. If researchers around the world are going to alter the genomes of living things, we think they must get it right, hence why we are pushing hard to give them fast and precise quality control tools together with the expert team from COBO."

"The QC CRISPR-Chip will expand and strengthen the way we do quality control of CRISPR cells today. On top of that, the platform is portable and easy to adapt to clinical settings in the future. We already have a solid customer base eager to test Cardea's CRISPR-Chip platform, so we're quite excited about building our product on the Cardea infrastructure," says Mr. Bock.

The strategic partnership will be announced at the Precision Medicine World Conference in Silicon Valley, Jan. 21-24, 2020. Visit both partners at Booth #B1714 and join the panel discussion: "How CRISPR Revolutionizes Genomic Medicine" on Friday 24th at 3:30 PM, where Mr. Bock and Cardea's CSO, Dr. Kiana Aran, will be speaking about the importance of quality control when using CRISPR.

About Cardea
Cardea Bio is developing a new generation of (bio)technology infrastructure based on proprietary biology-gated transistors ("Cardean transistors"). Cardean transistors leverage biocompatible graphene instead of silicon and replace optical signal observations with direct electrical molecular signal analysis. Until now, life science data was comprised of static snapshot datasets. With Cardean transistors, the company and its Innovation Partners can generate streaming multi-omics data to measure real-time biological signals. Cardea is now manufacturing chips at scale and partners have started to significantly expand the amount, type and quality of biological data they capture by building products that Conduct Biology™. Cardea is headquartered in San Diego, California.

About COBO Technologies
COBO Technologies is a fast-growing CRO specialized in services and products for quality control of genome editing applications in research and pre-clinical fields. The company supports customers globally with detailed DNA mutation analysis and complexed protein expression profiling of cells, plants or animals modified with genome editing tools such as CRISPR-Cas9, ZFNs, Meganucleases and TALENs.

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