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Aeluma Receives U.S. Department of Energy Contract for Scalable Semiconductor Sensors

Funding to Accelerate Development of Low-Cost Photodetectors Applicable to Mobile, AR/VR, and Industrial Markets

GOLETA, CA / [ACCESS Newswire](#) / April 23, 2025 / Aeluma, Inc. (NASDAQ:ALMU), a semiconductor company specializing in high-performance, scalable technologies for mobile, automotive, AI, defense and aerospace, communication, and quantum computing, announced today it has received a contract from the U.S. Department of Energy (DOE) to develop commercially viable, low-cost shortwave infrared (SWIR) photodetectors. The award will accelerate commercialization of Aeluma's wafer-scale platform for high-sensitivity, energy-efficient photodetector sensors applicable across critical growth sectors.

The DOE-backed project targets development of a breakthrough solution for SWIR detection-supporting wavelengths beyond the visible spectrum that are critical for applications in quality inspection, remote sensing, and machine vision. SWIR is also eye safe, enabling high-performance systems in consumer markets including mobile, AR/VR, and automotive.

"Today's SWIR technologies are held back by high costs, large form factors, and power inefficiencies that prevent mainstream adoption," said Dr. Jonathan Klamkin, Founder and CEO of Aeluma. "This DOE contract positions Aeluma to deliver a scalable, CMOS-compatible solution that combines high sensitivity with cost efficiency. This is a critical step in unlocking SWIR sensing for commercial applications."

Aeluma's technology integrates high-performance compound semiconductors with large-diameter substrates, enabling SWIR devices that deliver on performance requirements while also being manufactured at scale. The DOE contract will support development of a new class of sensors designed to serve real-time inspection and imaging needs at a fraction of the cost of today's SWIR systems, and reflects a growing urgency to bring SWIR sensing into mainstream commercial markets.

The program aligns with Aeluma's broader commercial roadmap, which targets mobile, AR/VR, defense and aerospace, AI infrastructure, communication, and quantum computing. It also marks Aeluma's second DOE-funded initiative and follows wins from DARPA, the Navy, the Office of the Secretary of Defense, the Air Force, and NASA.

About Aeluma, Inc.

Aeluma (www.aeluma.com) develops photonics and optoelectronics for sensing, computing,

and communication applications. Aeluma has pioneered a technique to manufacture semiconductor chips using high-performance compound semiconductor materials on large-diameter substrates that are commonly used for mass-market microelectronics. The technology has the potential to enhance performance and scale manufacturing, both of which are critical for emerging applications. Aeluma is developing a streamlined business model from its headquarters in Santa Barbara, California that has a state-of-the-art manufacturing cleanroom. Its transformative semiconductor chip technology may impact a variety of markets including mobile, defense and aerospace, AI, automotive, AR/VR, quantum, and communication. Aeluma differentiates itself with unique semiconductor manufacturing capability, proprietary technology, the ability to perform rapid prototyping, and a broad set of product offerings.

Forward-Looking Statements

All statements in this press release that are not historical are forward-looking statements, including, among other things, statements relating to the Company's expectations regarding its market position and market opportunity, expectations and plans as to its product development, manufacturing and sales, and relations with its partners and investors. These statements are not historical facts but rather are based on the Company's current expectations, estimates, and projections regarding its business, operations and other similar or related factors. Words such as "may," "will," "could," "would," "should," "anticipate," "predict," "potential," "continue," "expect," "intend," "plan," "project," "believe," "estimate," and other similar or related expressions are used to identify these forward-looking statements, although not all forward-looking statements contain these words. You should not place undue reliance on forward-looking statements because they involve known and unknown risks, uncertainties, and assumptions that are difficult or impossible to predict and, in some cases, beyond the Company's control. Actual results may differ materially from those in the forward-looking statements as a result of a number of factors, including those described in the Company's filings with the Securities and Exchange Commission. The Company undertakes no obligation to revise or update information in this release to reflect events or circumstances in the future, even if new information becomes available.

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