At-Home Blood Testing for Heart Failure Management Based on Novel BioChip Technology Ofer Bar On Company name Luma Biophotonics * Website www.luma-bio.com * CEO name Dr. Ofer Bar-On.

“Bio Convergence” “Startup Competition” • Executive Summary: Luma is developing an at-home blood testing platform for heart failure, powered by polymer photonics. The system enables frequent, low-cost multi-biomarker monitoring to support earlier intervention and reduce hospitalizations in a multi-billion-dollar market. Backed by experienced investors, leading clinicians, and a recently approved Israel Innovation Authority grant, The company is finalizing a $3.2M seed round backed by experienced technology and healthcare investors. • Core Technology: Silicon photonics has demonstrated powerful biosensing capabilities, but remains costly and hard to scale. Luma is the first to introduce a patent-pending polymer photonics platform, dramatically reducing cost while maintaining performance. By enabling detection of both proteins and electrolytes, Luma uniquely supports comprehensive, affordable panels for chronic disease management, particularly heart failure, enabling data-driven therapy optimization at home. • Product Profile: Luma is developing a compact analyzer with disposable cartridges for heart failure monitoring, enabling at-home measurement of key blood biomarkers, including NT-proBNP, renal markers, and electrolytes. The platform is advancing toward productization, with a pilot planned within 18 months. Supported by top KOLs, Luma is in discussions with leading institutions including Cedars-Sinai, NewYork-Presbyterian, and Mayo Clinic. • Business Strategy: Luma generates revenue through a "razor and blade" model: selling affordable analyzers and recurring high-margin disposable cartridges. Short-term growth focuses on US-based heart failure programs and Remote Patient Monitoring (RPM) reimbursement. Long-term, the platform scales by expanding into other chronic diseases requiring frequent, multi-biomarker diagnostic data. • What's Next? Luma is advancing toward productization, scaling automated chip manufacturing ahead of pilot studies. The company plans FDA engagement by late 2026 to define its regulatory pathway, while expanding clinical and engineering teams. In parallel, Luma is strengthening market access and payer strategy to support pilot execution, real-world validation, and future commercial scale.