

ABSTRACT TEMPLATE: CHECKLIST AND INSTRUCTIONS

Please complete the **ABSTRACT TEMPLATE** online, for Biomed 2025 Company Presentations
All items marked with an * are mandatory to complete

Company name Luma Biophotonics Ltd. * Website www.luma-bio.com *

CEO name Dr. Ofer Bar-On *

Select a **CATEGORY**: Medical Devices*
(Delete categories you are not selecting)

Select up to two **SESSIONS** per abstract from the list below *
(Delete sessions you are not selecting)

- **Frontiers in Biochip and Bio-Devices; Advancing Technological Systems with Cutting-Edge Biology**

You may delete the section instructions, leaving only the **bolded bullet title**
Answers below should not exceed 60 words per question:

• **Executive Summary**

Luma Biophotonics is developing a unique photonic biochip platform enabling low-cost, quantitative, multi-omics blood testing at home for chronic disease management. Initially focused on heart failure, a major unmet need in chronic care, we've demonstrated strong technical feasibility, secured early investment, and initiated key collaborations. Our multidisciplinary team combines deep-tech innovation with healthcare experience to transform chronic disease management.

• **Core Technology**

Luma's platform is the first to apply low-cost polymeric photonic integrated circuits for at-home blood testing. The technology allows sensitive, quantitative, and multi-omics measurement from any fluid bio-sample, including a simple finger prick. This approach has the potential to fill a major gap in chronic disease care by supporting real-time, accessible monitoring and personalized disease management outside traditional clinical settings.

• **Product Profile**

Our lead product targets heart failure management through home-based testing of key blood biomarkers. With 1M+ hospitalizations annually and \$70B in projected U.S. costs by 2030, the need for better monitoring is urgent. We're finalizing our prototype for clinical trials, with a platform expandable to other chronic conditions and well-suited for hospital and payer partnerships.

• **Business Strategy**

In the short term, we target Accountable Care Organizations and Medicare Advantage value-based care organizations focused on reducing readmissions. As we scale, we plan to expand to private insurers and extend our platform to additional chronic conditions. The shift to outcome-based care drives growing demand for home-based tools that improve long-term management and lower healthcare costs.

- **What's Next?**

Planned next steps include finalizing the prototype to allow sample-to-answer, demonstrating comparability to lab results on blood samples, initiating usability studies for home use, and preparing for regulatory submission. In parallel, we are expanding our team, discussing collaborations for future pilot programs and finalizing a financing round.