

Vasiliki Vlacha, MD, PhD

AimaLabs: AI Identification Solution for **Blood Smear**

*Bridging the Diagnostic Gap:
1.5B Patients with Anemia and Leukemia*



AimaLabs

Investment Opportunity Highlights

A scalable diagnostics solution bridging the gap in manual blood smear analysis through AI.



Critical Diagnostic Gap

Addressing a massive unmet need affecting **1.5 billion patients** worldwide who lack access to timely diagnostics.



Superior Performance

Proprietary AI-driven blood cell analysis delivering **95%–97% accuracy**, significantly accelerating clinical decisions.



Highly Scalable

Asset-light software solution designed for both high-volume reference labs and decentralized facilities.



Attractive Economics

Competitive hybrid pricing model (SaaS subscription + per-test fee) ensures recurring revenue.



Clear Path to Market

Strong penetration potential leveraging strategic partnerships with LIS vendors and distributor networks.



Expert Leadership

Founded by a multidisciplinary team combining deep clinical expertise in pediatric hematology with AI.

AimaLabs

The Aima Labs Team

Combining decades of pediatric hematology experience with cutting-edge AI engineering.

★ CO-FOUNDERS



CEO
Vasiliki Vlach, MD, PhD
35+ years Pediatric Hematology
Brown University, USA



CTO
Christos Maniatis, PhD
University of Edinburgh



CSO
Daniel Tikhomirov BSc
University of Cambridge

👥 ADVISORY BOARD



Software Engineering
Angelos Perivolaropoulos
Software Engineering
University of Glasgow



Product Advisor
Persefoni Perivolaropoulou
Product Strategy
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Robert Ghosh
Biomedical Innovation
Expertology / NHS

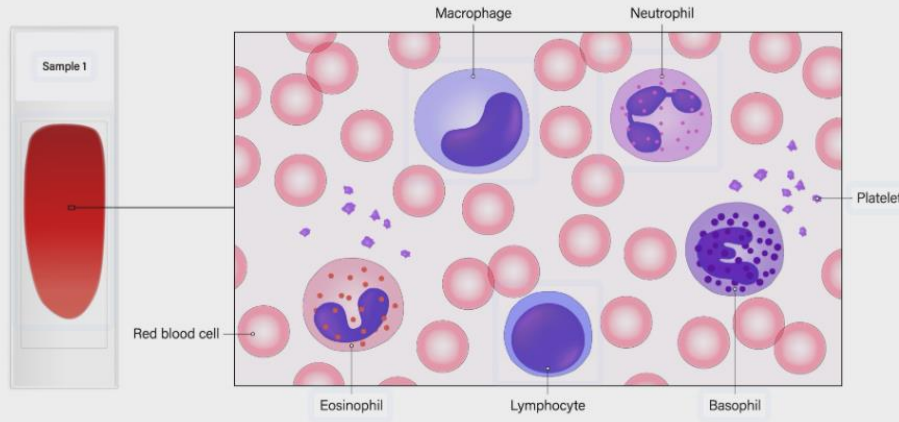


Business Advisor
Rebecca Ruan
Financial Strategy
BoFA / Cowen / Deutsche Bank

Blood Smear: A Core Tool for Diagnosing a Wide Range of Hematologic Conditions

What is a blood smear?

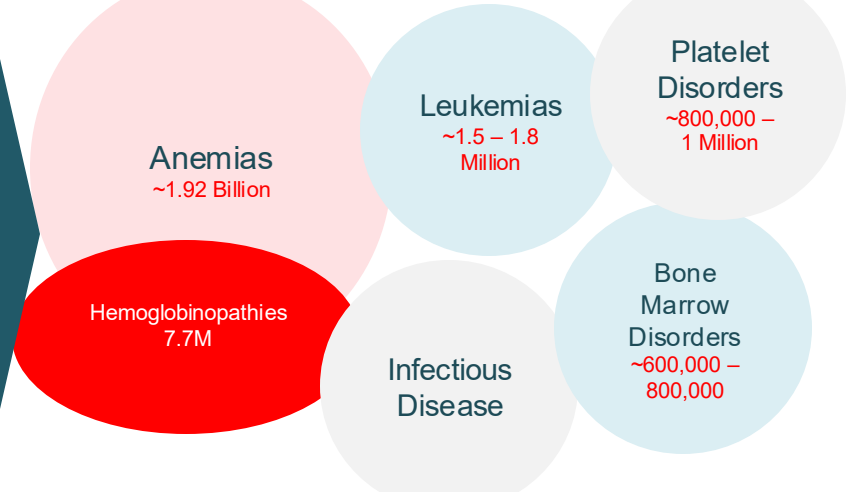
A small blood sample is spread on a glass slide to observe red and white blood cells and platelets under a microscope.



Complete Blood Count (CBC) tells "how many cells", Blood Smear tells "how they look".

Where are blood smear used for?

Conditions diagnosed by blood smear



Early detection improves outcomes and guides timely treatment decisions

The Problem: Underutilization of Blood Smear Analysis Due to Its Manual, Unscalable Nature

Despite Blood Smear's clear value...

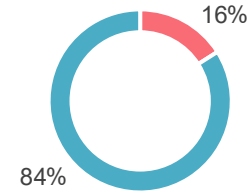


Resulting in a meaningful underutilization

Blood smear reviews provide up to **46%** additional clinical value ¹

Its manual process limits scalability

Overview of WW CBC Performed



CBC Accuracy w/o Blood Smear

■ Blood Smear ■ Non Blood Smear

Blood Smear is the golden standard for CBC that achieves near 100% accuracy

- Requires physical presence of trained personnel
- 10–20 minutes per smear
- Accuracy depends on individual expertise
- Not viable for large-volume testing in busy lab settings

- More than 5 billion complete blood counts (CBCs) are performed annually worldwide
- **84%** of the blood counts are not evaluated by blood smear
- **1.5 Billion Anemia Cases: Undiagnosed Etiologies due to Lack of Smears**

1. Comar, S. R. (2017). *Revista brasileira de hematologia e hemoterapia*, 39(4), 306-317.

Our Solution: a system that receives an image as input and provides a diagnosis with the help of an AI model

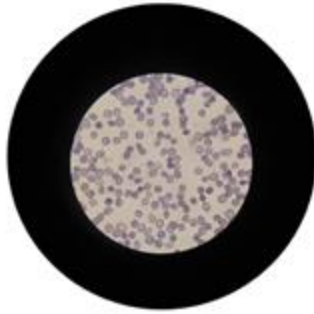


Image Capture

Obtain a microscopic image of the peripheral blood film.



Model Input

Input the image into the AI model. Accuracy reaching 97% in specific cell types



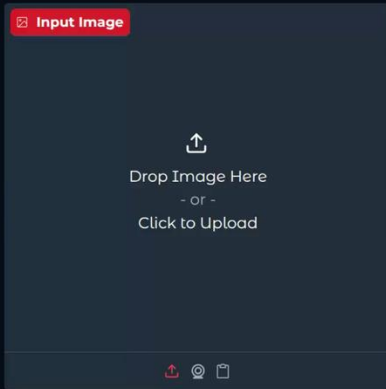
Analysis & Results

Cell Count: number of different types of red blood cells.

Diagnostic Insights: Provide potential diagnoses.

AimaLabs Demo

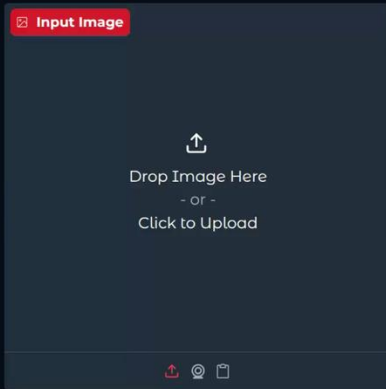
Upload an image of a blood smear to get the cell morphology.



Analyze

AimaLabs Demo

Upload an image of a blood smear to get the cell morphology.



Analyze

Microscopic Evaluation Workflow

Comparing Legacy Manual Methods vs. AimaLabs **AI Optimized**

**Legacy
Manual**



Total: ~18 Mins

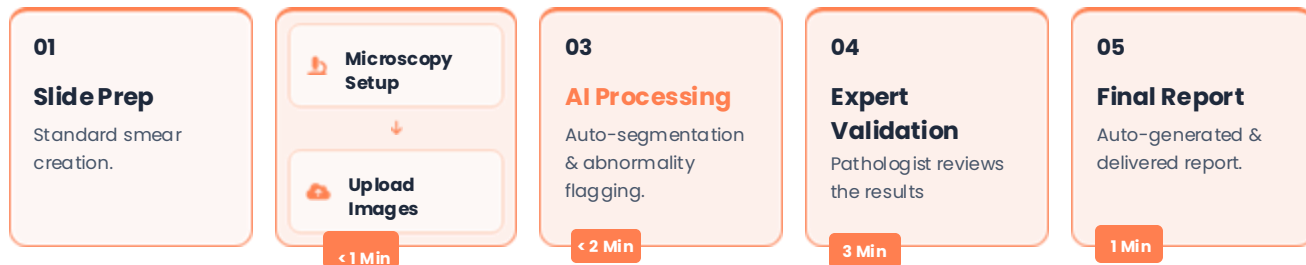


Up to ~60% in Time Saving

**AimaLabs
AI Optimized**







Total: < 7 Mins







The Improvement: Efficiency, Consistency & Availability

Manual Microscopic

-  **Process Time**
Per smear: **10–20 min**
-  **Accuracy**
Operator-dependent; variable across examiners.
-  **Availability**
Requires physical presence at microscope.
-  **Impact**
High hands-on time; baseline throughput and speed.



AimaLabs

-  **Process Time**
Per smear: **< 2 min**
-  **Accuracy**
Standardized morphology assessment; consistent outputs.
-  **Availability**
Anytime, anywhere; remote review supported.
-  **Impact**
5× faster processing, **+400%** capacity, **80%** time saved and redeployed to higher-value tasks.



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Market Potential

Target Clients: Institutions that perform meaningful volume of CBC

 Hospitals & Clinics

 Diagnostic Laboratories

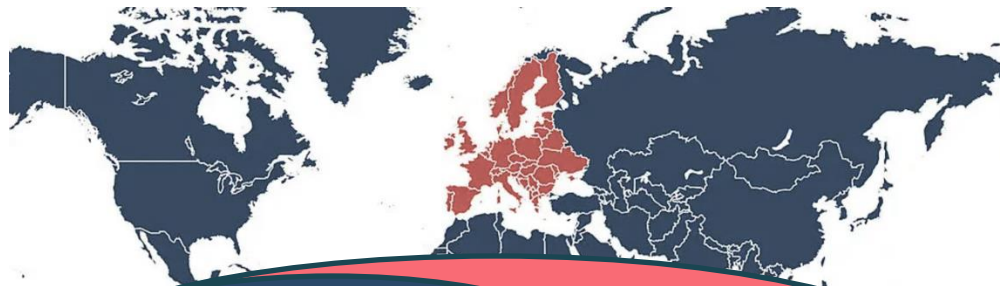
 Research Institutions

 Pharmaceutical Companies

Top Focus

European Market:
84,000 **Health Centres**

Global Market:
254,000 **Health Centres**



SOM: ~\$895M

SAM
\$4.88B

TAM
~\$58.64B

EU5+Greece

High volume labs and small-to-medium sized facilities
15,000 HC \$350M population

EU + North America

Labs and hospitals across all sizes
125,000 HC & 1B population

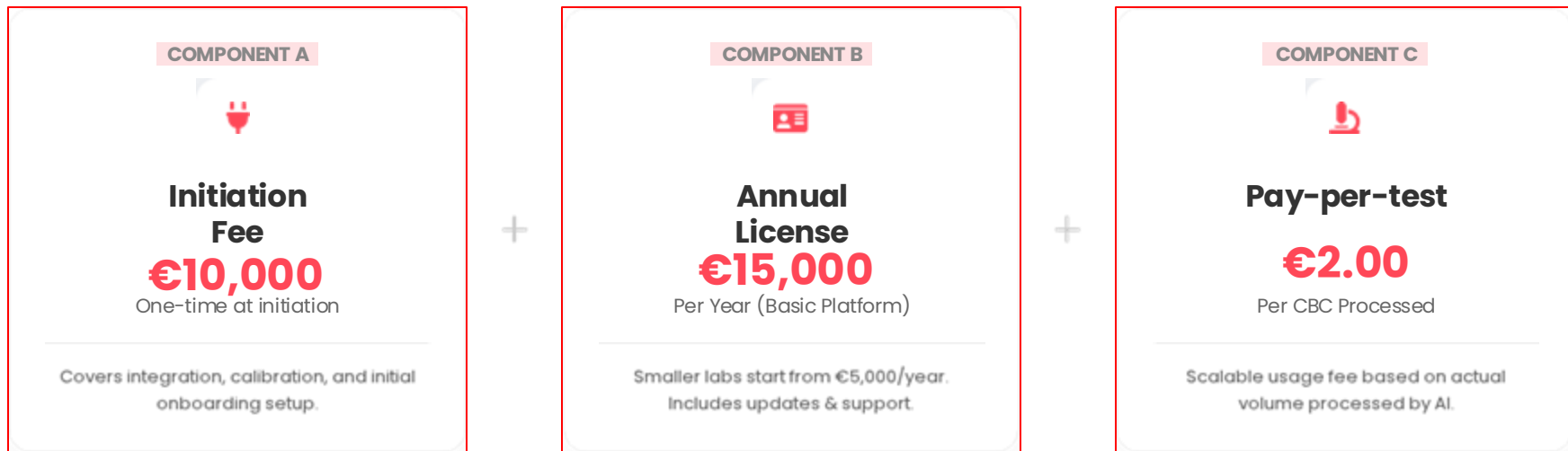
Global

Liquid Biopsy market

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PRELIMINARY PRICING MODEL

Three Major Components for Flexible Scalability



Illustrative Impact: Medium Lab

Based on 100,000 CBCs/year
(50% processed via Aimalabs)

PLATFORM COST

€163,000

LABOR SAVINGS

€240,000

Based on €60,000/yr labor cost

NET BENEFIT

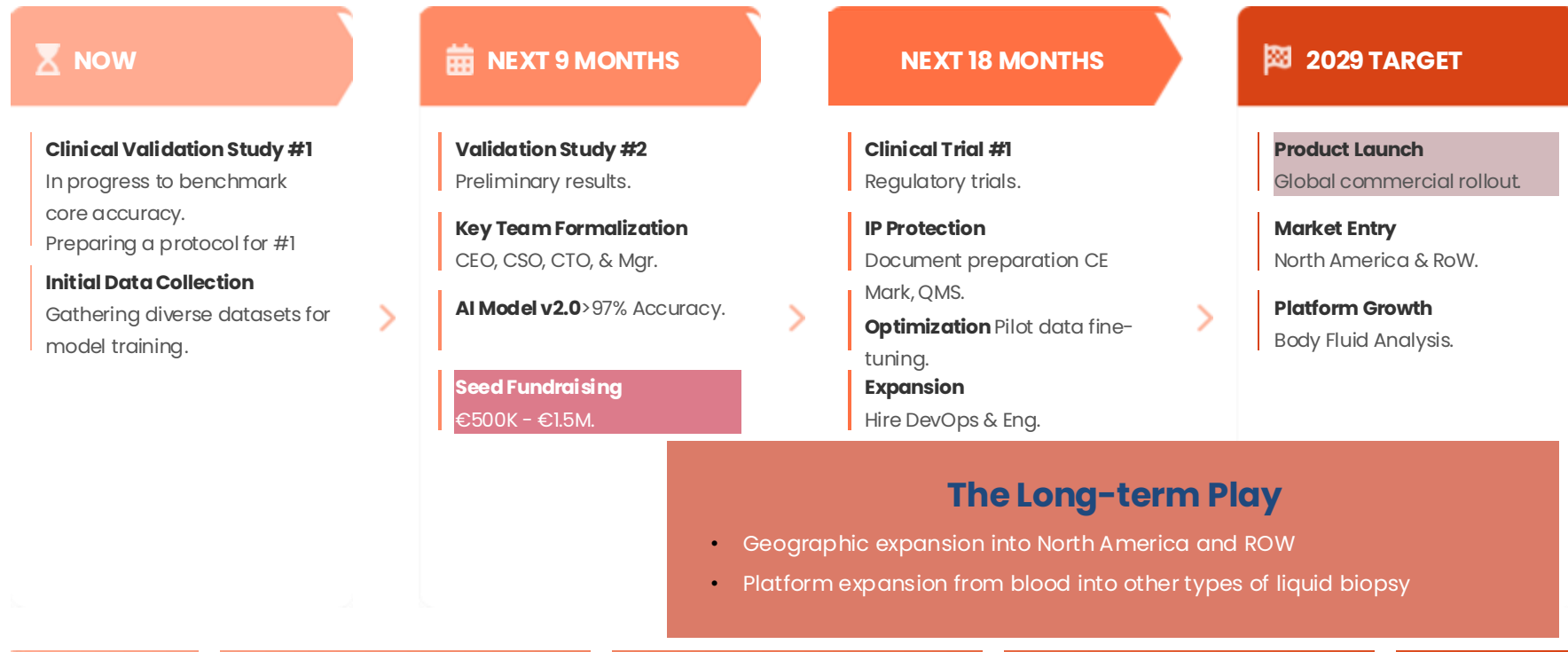
€77,000 (32%) +

Saves 400,000 minutes of technician work/yr

Goal & Vision Roadmap

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Vision: Every patient receives appropriate care with accessible diagnostic analysis.



Next Steps: What the funding will facilitate

Expanding Cell Characterization

Acquiring more diverse lab data to train the AI on rare and complex cell types.

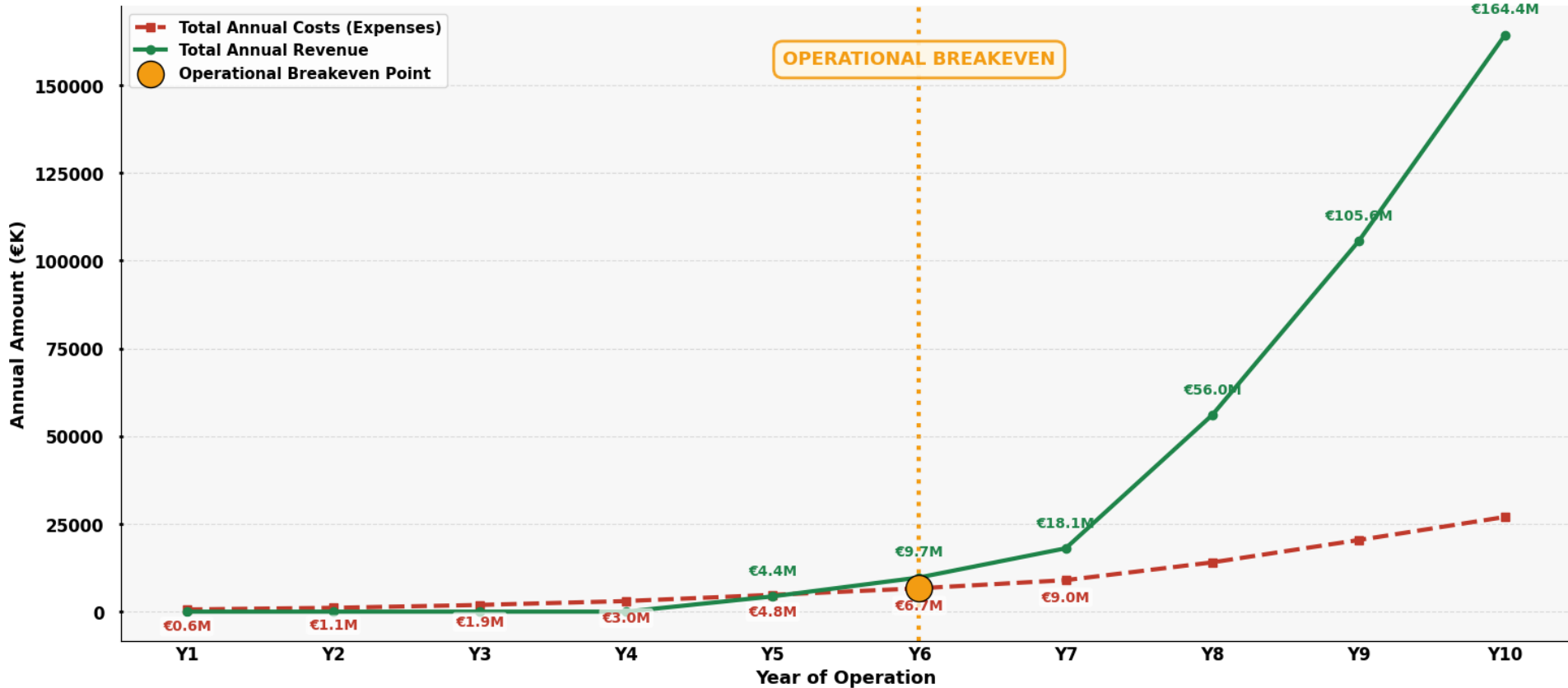
Advancing Regulatory Approval

Initiating FDA/EU pathways to bring the product to market faster.

Growing the Team

Adding key hires in R&D, clinical, and go-to-market functions.

AimaLabs 10-Year Financial Trajectory: Annual Revenue vs. Costs



CUMULATIVE COST (End of Year): | Y1: €0.6M | Y2: €1.7M | Y3: €3.6M | Y4: €6.6M | Y5: €11.4M | Y6: €18.1M | Y7: €27.1M | Y8: €41.1M | Y9: €61.5M | Y10: €88.5M

THE DIFFERENTIATION

ASSET-LIGHT SOLUTION WITH MINIMAL HARDWARE FOOTPRINT AND EASY TO SCALE

FEATURE	AIMALABS	MANUAL MICROSCOPY	SCOPIO LABS	CELLA VISION	MANTI SCOPE	SIG TUPLE	METASYSTEMS INTL.
Software-centric	✓	×	×	×	×	×	✓
AI-driven morphology	✓	×	PARTIAL	PARTIAL	PARTIAL	PARTIAL	PARTIAL
Fully digital workflow	✓	×	×	×	×	×	×
Standard Hardware Model	✓	✓	×	×	×	×	×
Scalable to high volumes	✓	×	×	×	×	×	✓
Designed for general labs	✓	✓	×	×	×	×	✓
Offering Diagnosis	✓	×	×	×	×	×	×
Mobile Application	✓	×	×	×	×	×	×
Est. Cost / Model	\$0 CapEx SaaS Model	High Labor	\$100k+ High CapEx	\$70k+ High CapEx	\$100k+ High CapEx	\$100k+ High CapEx	\$115k+ Specialized Scanner

Achievements & Growth

Recognition of Excellence and Strategic Partnerships

AWARDS RECEIVED

Behealth StartUp Competition
Oct 2025

1ST PRIZE

Pfizer-Start 4Health
Oct 2024 • Thessaloniki

2ND AWARD

Beyond Tomorrow
Apr 2025 • Athens

2ND AWARD

StartSmart SEE / MIT
July 2025

3RD AWARD

AI Visionaries - Leading Innovation P.
Perivolaropoulou • Jan 2025 • London

RECOGNITION

Univ. of Ioannina
May 2025

HONORARY

ACCELERATORS & PROGRAMS

EGG Accelerator
June 2025

PARTICIPANT

Nvidia Inception Program
2025

MEMBER

ConceptionX
2025

COHORT 8

Deloitte - Brainzone
2025

PARTICIPANT

Greek Pedi Hematology Oncology
2024

FEATURED

Testimonials: What Our Prospective Clients Say



Panagiota Xaplanteri

LABORATORY DIRECTOR

“The AimaLabs platform, with its ability to deliver a reliable analysis in under two minutes, is the solution we are looking for. The value to our laboratory and the hospital at large is immediate and substantial.”

“The AimaLabs platform directly addresses the critical gap in care. The ability for our on-duty laboratory staff to get an AI-powered, standardized analysis in under 2 minutes is a paradigm shift. This capability is not about efficiency; it is about patient safety and reducing the immense anxiety experienced in families during these critical moments.”



Gavriela Feketea

DIRECTOR OF PEDIATRICS

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**Thank
You**



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