100XBIO

A robot for cell biology R&D: from 100 steps to 1 click

From distributed labs to a unified network:
the automated physical layer for biology AI

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robotics
techbio
physical AI
biotech
life sciences
deeptech

Manual workflows: an expensive discovery bottleneck

Most of biologists' work is manual. It is **slow, inconsistent, and hard to scale.**

> *A minor error can ruin 90 days of team's work and cost $300,000.*

Automation could reclaim $40B in U.S. "reproducibility" losses.* However, **most labs can't afford automation!**

80% of scientists named "human errors" a problem

*Estimate adjusted for 2025/26 industry R&D spending growth; Freedman et al., PLOS Biology

Our robot runs 100-step experiments end-to-end

We automate 2-day experiments with **imaging and cytometry** including cell treatment, staining, and analysis.

These are the core workflows used in **>90% of Cell and Cancer Biology labs.**

Focusing on 2-day workflows, we cover **>80% of standard protocols.**

1-click operation*

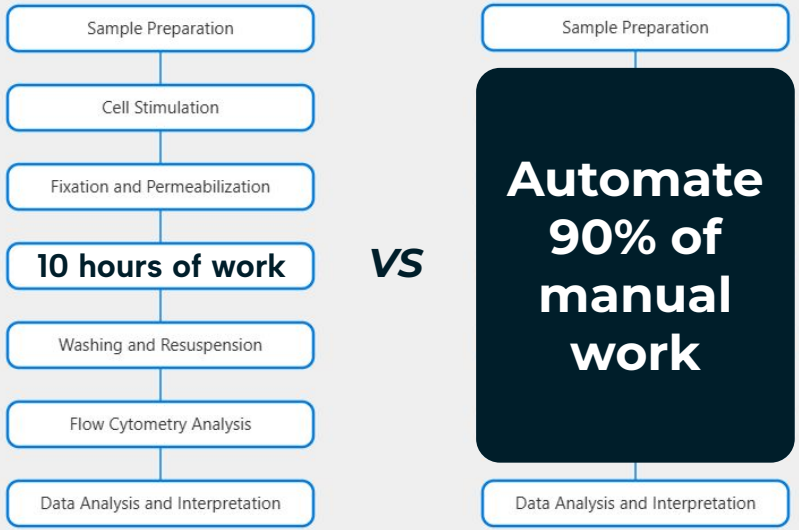
*For repeat protocols with commercial kits and pre-plated biosample

10x cheaper setup: affordability changes the ROI math

Status Quo: >98% of labs execute such 100-step cell-based studies manually.

Competition: custom and rigid 1-room systems = $1M–$3M integration projects.

100XBIO: 10x cheaper setup. The first two years = just $80K upfront. $40K per year is ~0.2–0.5 of the total cost of an FTE.



*Two Utility Patent Applications Filed (fully owned IP): PCT/US2024/037718 and PCT/US2025/033135

Defining the 100XBIO's Hybrid Cytometry

	Microscopy	Flow Cytometry	Hybrid Cytometry
Live-cell tracking	✓	✗	✓
High multiplexity	✗	✓	✓
Data-rich imaging	✓	✗	✓
10X cheaper scaling	✗	✗	✓
Live-to-Fixed data*	✗	✗	✓
Minimal cell losses*	✗	✗	✓
Manual work timing	10 hours	10 hours	1 hour

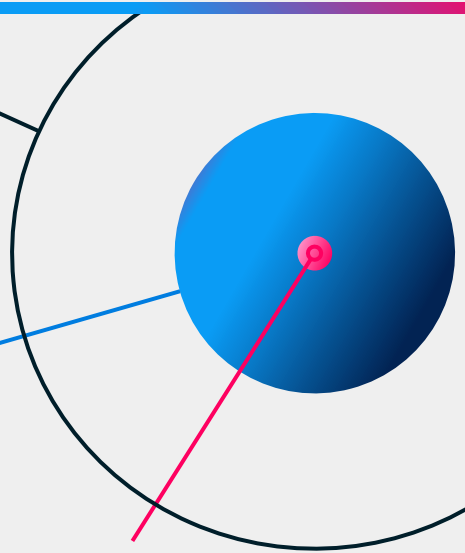
Discover new biology of fragile and rare cells, cell death and immune synapses.

*Two Utility Patent Applications Filed (fully owned IP): PCT/US2024/037718 and PCT/US2025/033135

Our Hybrid Cytometry is addressing $17B markets

The vision is to build a perfect **tool for AI-driven BIO research:** compact, affordable, scalable.

Enable self-learning autonomous **life science R&D infrastructure.**



Global TAM, $17B*

$5B cytometry +

$12B microscopy

US SAM, $2B

16,000 US labs x

$125K/year

SOM, $100M

Cancer therapies R&D labs,

150 sales/year = path to IPO

A future $50B+ market** of

self-learning labs-in-the loop

*Flow cytometry and microscopy are established life science/biomedical technology markets
**$50B value comes from hardware + labor augmentation + efficiency premiums + data hunger

Market entry: personalized cancer vaccines R&D

Unmatched 10-100x tests per biosample
via repeated data reads (patented tech).

Robot does the testing, not a technician.

Vision: 3-5x cost reduction of the therapy
due to small-volume at-home collections instead of repeated costly hospital visits.

What are these vaccines?
Learn more

Cost of the therapy course

$100K → $25K

50 mL → 5 mL

Traction and industry recognition

Completed: 1st paid cytometry consulting project (Tufts, 2025).

Launching soon: 2nd & 3rd paid project at an Oncology unicorn and a top-tier oncology lab (2026).

Late-Stage Talks: list of validation requirements from the top RNA medicines pharma company (2026).

>250 interviews with experts & users

Lilly Pfizer BMS Sanofi AZ Abbvie GSK Novartis

➜ **Secured** 6 signed LOIs.

Planned & current partnerships

Tufts University · Karolinska Institutet Anno 1810 · NYU Langone Health · Penn University of Pennsylvania

Industry recognition & program acceptance

Innovation AveNEW™ · slas Come Transform Research · BIOTOOLS INNOVATOR Road Tour · NVIDIA Inception Program

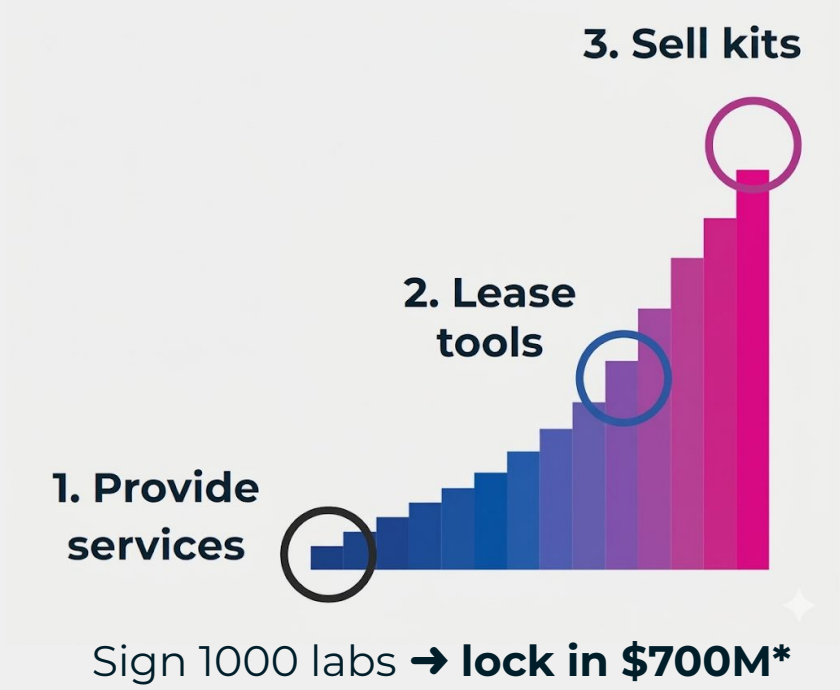
Innovation Pick: Life Sciences, Feb 2026

Business model: maximizing early adoption

Hardware Subscription (SaaS-like): $70K build, a $240K /6-year contract; 2-year paid at signing; or a buyout.

High-Margin Consumables: Sales of plates and R&D kits, >90% margins.

Massive Upside: $0.7M+ average LTV per user in biotech (3+ units).



*Over $100M yearly revenue with 2x YOY growth most likely would be valued as a unicorn company

Intersection of deep biology and scalable robotics

Penn Medicine

GreenLight Biosciences

Sergei Pull, PhD, CEO

- 12K connections, early sales
- Raised $335K from network
- >10 peer-reviewed papers

SAMEDAYHEALTH

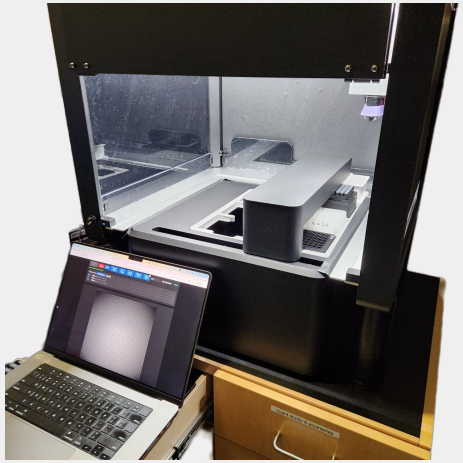
JETBRAINS

Timofei Bondarev, CTO

- Managed 3 teams, >20 FTEs
- Data of >1,000,000 patients
- From investor to co-founder

Working prototype

Watch demo



30+ total years in immunology and automation.

We lived the users' pains, and scaled massive data workflows. **We built an AI-ready robot for biology*.**

*And we have a GTM and BD expert in stealth mode ready to join the team at the right time.

Why now? Technology and market convergence.

The market is ready: Opentrons proved labs want the robotics.

The gap is clear: Microscopy or cytometry integrations lacking.

Our innovation: We patented a way for 10x cheaper automation for existing day-to-day workflows using a mature technology stack.

Proven stack*:

1. Pipetting robot: used in 1,000s of labs + a custom incubated dark enclosure

2. Plates: next-gen design built for the “gentle wash”

3. Microscope: fast, custom-configured

4. Localized GPU: real-time processing

*Producers of each critical component are 10+ years in the market.

We need $900K to deploy 5 pilots = $3.5M pipeline

Raised: $335K Pre-seed 1

➜ Built prototype & early sales

Raising: $900K Pre-seed 2

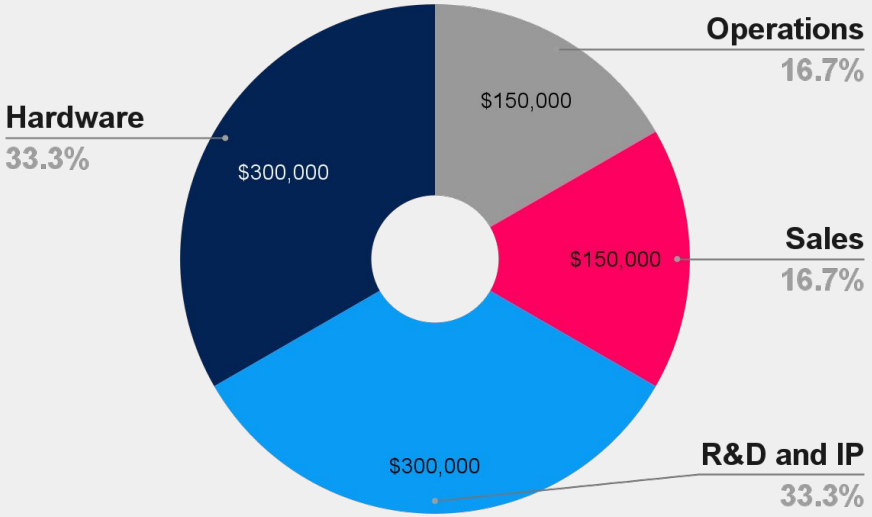
➜ Fund 5 pilot deployments

Next Steps: $5M Seed

➜ To grow 3-5x/year, raise more

➜ To serve >10,000 bio labs

Use of funds



Email: sergei@100xbio.com or call us ➜

Latest news and upcoming events in 2026 H1

February :

- SLAS 2026 Innovation Avenue

Watch video

March:

- Participated at PMWC 2026
- Pitched at YYF Competition
- Top 15%/550 pick for pitching @Biotools Innovator Road Tour
- Accepted to NVIDIA Inception

April:

- A recent 35-min podcast
- IMMUNOLOGY 2026 Poster

May and June plans:

- Vitalist Bay, San Francisco
- CYTO 2026 Poster, Florida

The future of R&D is automated. No way around it.

From 100 steps

To 1-click operation & “Lab-in-the-loop”

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