OPEN MEDICINE

A multi-agentic platform for end-to-end therapeutic development

Business model · Roadmap · Value proposition



September 23, 2026
www.open-medicine.ai

Forward-looking statements

This presentation contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. These forward-looking statements include, among other things, statements relating to: future events or our future financial performance; the expected market opportunity, user needs, platform roadmap, key future milestones, expected economics, and commercial model for the Open-Medicine AI platform; plans for the performance, benchmarking, and differentiation of the Open-Medicine AI platform; expectations relating to collaborations and partnerships; market estimates and expected market sizes; the planned evolution of the Open-Medicine AI platform beyond withZeta.ai to target broader disease areas, new modalities, and additional real-world drug development challenges; the planned development, value proposition and commercial potential of the Open-Medicine AI platform; and the potential advantages of the Open-Medicine AI platform in identifying drug candidates, accelerating drug development, and generating revenue through software licensing and subscription models.

Any statements that are not statements of historical fact (including, without limitation, statements that use words such as "anticipate," "believe," "contemplate," "could," "estimate," "expect," "intend," "seek," "may," "might," "plan," "potential," "predict," "project," "target," "model," "objective," "aim," "upcoming," "should," "will," "would," or the negative of these words or other similar expressions) should be considered forward-looking statements. There are a number of important factors that could cause our actual results to differ materially from those indicated by the forward-looking statements, such as (i) the risk that we may not be able to secure sufficient future funding when needed and as required to advance and support our existing and planned development programs and operations, (ii) the risk that our Open-Medicine AI commercialization efforts may not generate the anticipated revenue or achieve the expected market adoption, (iii) the risk that implementation of our development plans and new features for Open-Medicine AI may not be successful or may take longer than anticipated for development, completion, and release, (iv) the risk that no drug product based on our proprietary AI platforms has received FDA marketing approval or otherwise been incorporated into a commercial product, (v) the risk that benchmark or internal performance results for the Open-Medicine AI platform may not be indicative of performance in other settings or in use by third parties, (vi) the risk that ongoing partnership and collaborations discussions may not result in definitive agreements on acceptable terms or at all, and (vii) technical, scientific, regulatory, financial, competitive, and operational risks and those other factors set forth in the Risk Factors section in our Annual Report on Form 10-K for the year ended December 31, 2025, filed with the Securities and Exchange Commission on March 30, 2026.

You may access our Annual Report on Form 10-K for the year ended December 31, 2025 under the investor SEC filings tab of our website at www.lanternpharma.com or on the SEC's website at www.sec.gov. Given these risks and uncertainties, we can give no assurances that our forward-looking statements will prove to be accurate, or that any other results or events projected or contemplated by our forward-looking statements will in fact occur, and we caution investors not to place undue reliance on these statements. All forward-looking statements in this presentation represent our judgment as of the date hereof, and, except as otherwise required by law, we disclaim any obligation to update any forward-looking statements to conform the statement to actual results or changes in our expectations.

What we will cover – *slides and verbal*

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1 **Market**
The size of the opportunity and the shift from AI pilots to full-scale adoption

2 **Customers & feedback**
Who is buying, what they need, how they use the platform, what power users tell us

3 **Live demo**
Differentiated capabilities, shown in real time

4 **Roadmap**
Next-generation modules, priority disease areas, key milestones, social and enterprise features

5 **Economics**
The subscription and enterprise licensing model

6 **Benchmarks**
How the platform performs and how performance is measured

7 **Partnerships**
Types of collaborations under discussion

8 **Shareholder value**
How Open-Medicine AI adds to Lantern's pipeline and long-term value

45 minutes · questions welcome throughout; live Q&A at the end

We did not set out to build an AI company

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We set out to get cancer drugs to patients faster and with less capital — and built the tools we needed because they did not exist.

LANTERN PHARMA — CLINICAL PROGRAMS

LP-184 (zirdafulven)

Phase 1b/2 · TNBC, bladder, GBM · FDA Fast Track, Orphan

LP-300

HARMONIC™ Phase 2 · never-smoker NSCLC

LP-284

Phase 1 · hematologic malignancies, sarcomas

Starlight Therapeutics

CNS subsidiary · pediatric and adult brain cancers

THE AI LAYER BENEATH THEM

RADR®

2018–today

Machine-learning platform; five of the top 12 models on the TDC blood–brain-barrier leaderboard; hundreds of ML algorithms; 200+ billion data points; internally focused and used

withZeta.ai

April 2026

Multi-agentic co-scientist platform, highly curated knowledge bases and guard railed architecture; commercialized for rare and aggressive cancers with largest toolset for discovery and development trained like a Lantern scientist

Open-Medicine AI

2026–future

End-to-end therapeutic development platform, offered beyond oncology and beyond Lantern and being made available to all users through a subscription and freemium model

Each layer was built to run the programs above and before it. That provenance is the product.

Program status as of September 2026; see lanternpharma.com. RADR® leaderboard position: Therapeutics Data Commons BBB benchmark.

THE GROWTH RATIONALE BEHIND OPEN-MEDICINE AI

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A Complementary Growth Engine

Open-Medicine AI lets our team build a major new category, agentic AI for drug development, alongside Lantern's core discovery and development business.

CORE BUSINESS

Lantern Pharma

AI-driven drug discovery and development across oncology and CNS.

+

NEW CATEGORY & WHO IT SERVES

Open-Medicine AI

- Biotech companies
- Pharma companies
- CROs
- Service Providers
- Investment Funds
- Banks & Analysts
- Academic Research
- Clinician / Scientists

One platform, serving the whole industry invested in drug development's success.

Built by Lantern Pharma (Nasdaq: LTRN)

“AI co-scientists are revolutionizing how research is done”

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Artificial-intelligence tools might be able to propose theories and analyse data, but humans still need to decide what makes sense. — Elie Dolgin

> *“The bottleneck is in reliable validation.”*
>
> Anton Sinitskiy,
> Northeastern University, as quoted in Nature

> *“The most valuable part now is actually asking the question.”*
>
> Ajay Agrawal,
> University of Toronto, as quoted in Nature

> *“The protocols that are generated tend not to be very good. They’re more like recipes.”*
>
> Ross King,
> University of Cambridge, as quoted in Nature

NATURE · 21 SEPTEMBER 2026 · VOL 657 · TECHNOLOGY FEATURE

The field has arrived at the problem Open-Medicine AI was built to solve.

A co-scientist trained on the literature proposes ideas. A co-scientist built inside drug programs carries the constraints — cost, time, regulatory path, what is actually runnable — that decide which ideas are worth pursuing. When one researcher in the article re-ran her prompt with real time and cost limits, the system returned no viable hypotheses.



Dolgin E. “AI co-scientists are revolutionizing how research is done.” Nature 657:1108–1110 (21 September 2026). Quotations attributed to the named speakers as reported in the article.

PROGRESS TO DATE

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What We've Accomplished So Far

01
Customer feedback loops
Specific input from customers and power users on what's unique, what to improve, and what to build next.

02
Advisory board
Recruiting world-class advisors to help architect our success and surface market insights we may miss.

03
Security and scale
Strengthened the security and scalability of the core architecture while continuing to expand functionality.

04
Fully mobile
The entire platform now works on mobile, with significant growth in key user groups since launch.

05
Beyond oncology
Talks with institutions and pharma to add content and expertise in neurodegeneration (Alzheimer's) inflammatory and immune diseases.

UP NEXT

- **Market background**
- **Live platform demo**
- **CSO Case Commentary**
- **Q&A**

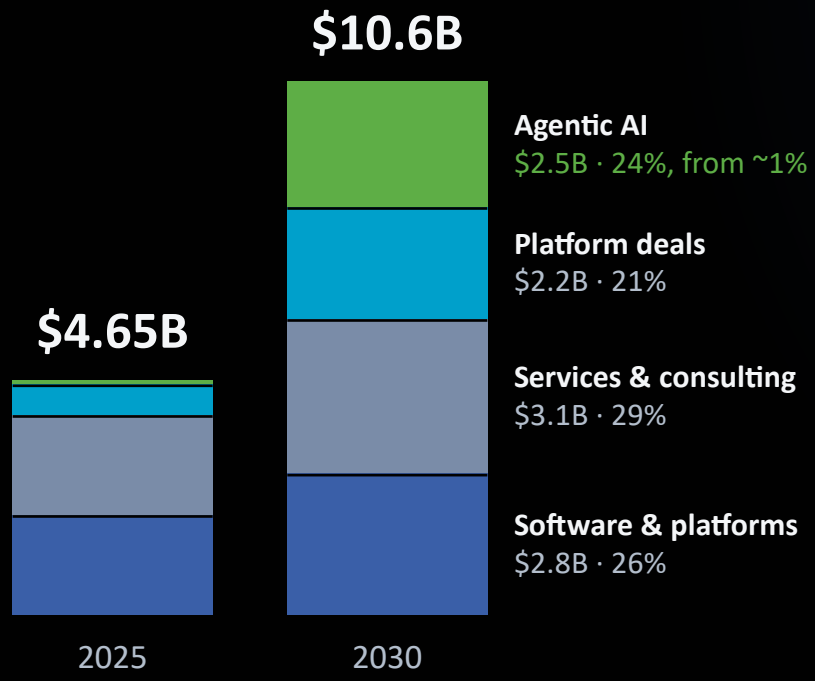
MARKET BACKGROUND

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How We See the Market Developing

Growing into a new category, marked by disruption and by acceleration in new drug candidates.

AI REVENUE POOL IN DRUG R&D



DISRUPTION

Legacy software and services stall

About $3.8B of today's $4.65B pool is flat to negative in real terms, and $1.2–1.6B moves to agentic delivery by 2030.

ACCELERATION

More drug candidates, sooner

Agentic systems run many hypotheses in parallel, so teams fail earlier, pivot faster and advance more candidates.

Source: Open-Medicine AI bottoms-up revenue pool model – does not include therapeutic revenue share or success - Aug 2026 · Built by Lantern Pharma

SIMULTANEOUS DISRUPTION & ENABLEMENT

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A New Generation *of* Scientific Work

> *Every prior computational wave made a single serial path cheaper. Agentic systems change the shape of the search and the execution itself.*

Panna Sharma, Founder & CEO

TRADITIONAL METHODS		CO-SCIENTIST SYSTEMS
One hypothesis at a time, in series	→	Five to ten hypotheses in parallel, at the cost of one
Value measured in headcount-hours	→	Value measured in encoded judgment and time to innovation
Knowledge scattered across literature, trials and archives	→	Coordinated specialist agents working from curated knowledge and contributing new knowledge
Programs fail late, after costly readouts	→	Programs fail earlier and pivot faster
Tools priced per seat	→	Systems valued on the speed to execution and parallel enablement

Built by Lantern Pharma (Nasdaq: LTRN)

LIVE DEMONSTRATION

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One question, carried end to end

1 A question a developer would actually ask

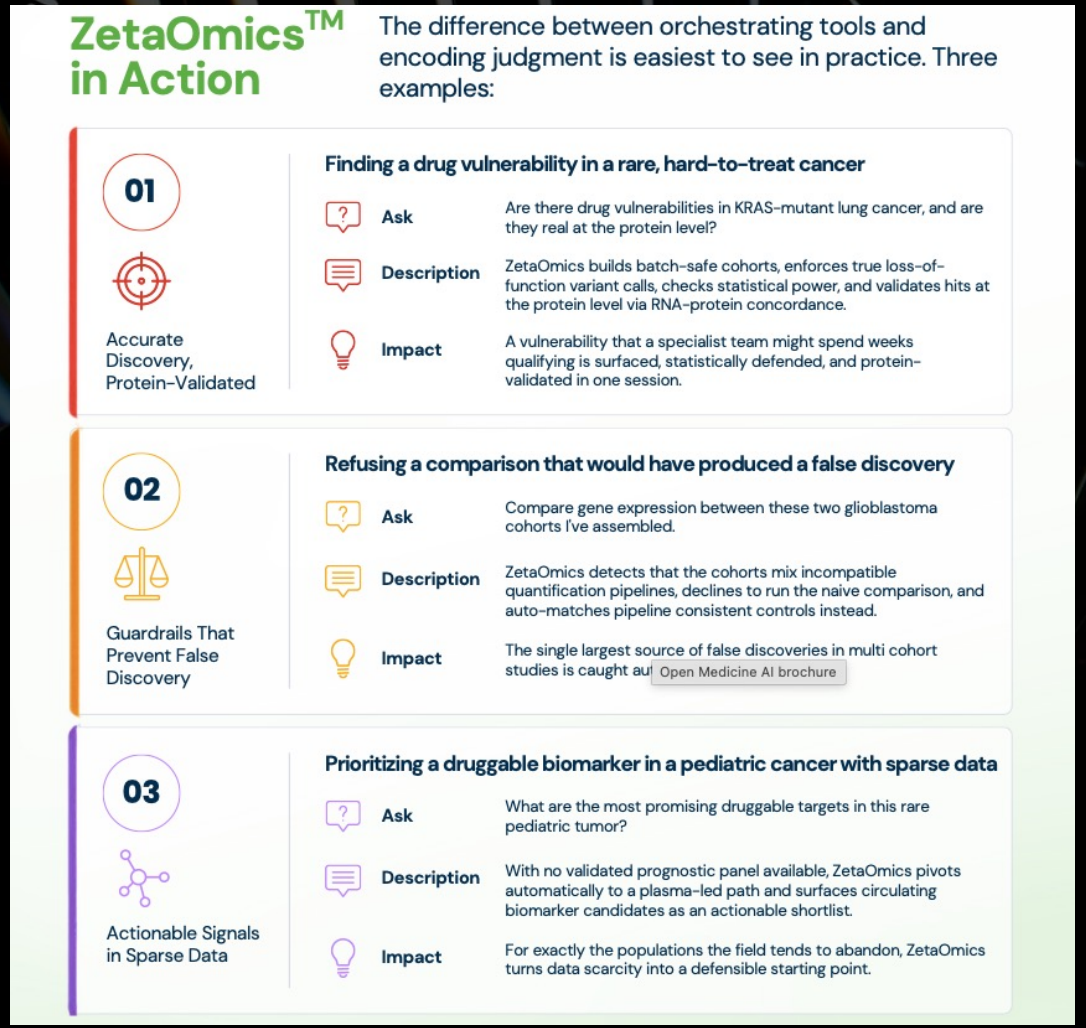
Which patients, which biomarker, and why — reasoned the way a senior bioinformatician would

2 The hand-off and active integration

Context carries to the next co-scientist without re-prompting: a team, not a tool

3 The downstream component; bias towards action

Trial design and regulatory reasoning — where the time and cost live, and where the roadmap goes



ZetaOmics™ in Action

The difference between orchestrating tools and encoding judgment is easiest to see in practice. Three examples:

01 — Accurate Discovery, Protein-Validated

Finding a drug vulnerability in a rare, hard-to-treat cancer

- **Ask** — Are there drug vulnerabilities in KRAS-mutant lung cancer, and are they real at the protein level?
- **Description** — ZetaOmics builds batch-safe cohorts, enforces true loss-of-function variant calls, checks statistical power, and validates hits at the protein level via RNA-protein concordance.
- **Impact** — A vulnerability that a specialist team might spend weeks qualifying is surfaced, statistically defended, and protein-validated in one session.

02 — Guardrails That Prevent False Discovery

Refusing a comparison that would have produced a false discovery

- **Ask** — Compare gene expression between these two glioblastoma cohorts I've assembled.
- **Description** — ZetaOmics detects that the cohorts mix incompatible quantification pipelines, declines to run the naive comparison, and auto-matches pipeline consistent controls instead.
- **Impact** — The single largest source of false discoveries in multi cohort studies is caught au

Open Medicine AI brochure

03 — Actionable Signals in Sparse Data

Prioritizing a druggable biomarker in a pediatric cancer with sparse data

- **Ask** — What are the most promising druggable targets in this rare pediatric tumor?
- **Description** — With no validated prognostic panel available, ZetaOmics pivots automatically to a plasma-led path and surfaces circulating biomarker candidates as an actionable shortlist.
- **Impact** — For exactly the populations the field tends to abandon, ZetaOmics turns data scarcity into a defensible starting point.

Supervised decision support. The agents propose and reason; They generate and augment the knowledge base; The scientist decides.

Who is using the platform…and what they tell us

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Biopharma R&D teams

Target and biomarker questions across programs; translational analysis; second opinions on program decisions; data uploads

Academic and translational labs

Cohort building and omics analysis without a bioinformatics queue; literature and trial synthesis; new research and alerts; group sharing

Service providers

CROs, bioinformatics and regulatory groups embedding co-scientists in client work; group folders; saving into formats; project codes

Independent developers

Small teams running full investigations that previously needed a department; uploading documents; on premise deployment

Customer segments, how they use withZeta.ai, and what users ask for.

USAGE SINCE LAUNCH

Over 200+ users and growing each month

Super users are averaging several dozen interactions or questions weekly

Most usage is in “investigator” mode

Hundreds of new molecules generated by users

WHAT POWER USERS ARE TELLING US

- **“Let me bring my own data and methods into the investigation.”**
- **“Can I run multiple scientists/agents in parallel…”**
- **“My team needs to share and build on each other’s work.”**
- **“Take it further downstream: trial design and regulatory questions.”**
- **“I would use it across the company if we can deploy it on-premise.”**

Partnerships in pursuit, under discussion and being architected

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Biopharma co-development

Co-scientists deployed inside a partner's program, with shared learning on outcomes

Patient & Disease Groups

Curated knowledge and access to reinforce therapeutic journey and empower trial seeking

Service-provider integration

CROs, bioinformatics and regulatory groups embedding co-scientists in client work with group functionality

Funds, Banks & Financial Institutions

Benchmarking for analytics, decision making, diligence and information development

Academic and consortium

Rare-disease and pediatric networks; shared paper-agent libraries; group sharing; proprietary literature and models

Technology and models

Open-source frontier models, chemistry models, lab automation, specialized tools

Governmental & Regulatory Agencies

Use for diligence, fact-checking, knowledgebase and review of development proposals and creation of knowledge graphs

ROADMAP

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Where Open-Medicine Goes Next

01 New disease categories

Neurodegenerative, immune, inflammatory, cardio-metabolic and psychedelic therapeutics.

02 Novel therapeutic modalities

More tools for peptides, cell and gene therapy, and radioligands.

03 Trial docs and regulatory filings

Trial design, virtual trial benchmarking, and support for FDA and EMA filings.

04 Proactive portfolio intelligence

Portfolio analysis and monitoring for large pharma, institutional investors and fund managers.

> *"When the marginal cost of analysis approaches zero, the binding constraint moves to hypothesis quality, time to innovation and decision judgment.*

Panna Sharma, Founder & CEO

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Every person on this call will at some point be a patient.

That is the reason the company exists, and the reason we built these tools inside our own programs first.

Open-Medicine AI is how we make them available to everyone else who is trying to get a therapy to a patient.

QUESTIONS

IR@lanternpharma.com · (972) 277-1136
www.open-medicine.ai · www.lanternpharma.com

A recording will be available on the Investors section of lanternpharma.com.







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