

Short Report – Tempus AI, Inc.

(NASDAQ: TEM)

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Prepared by: Global Achemistica Inc

Disclosure: The author(s) hold a short position in TEM. This report reflects opinions only.

Executive Summary

Tempus AI, Inc. (“Tempus”) provides precision-medicine solutions by combining genomic sequencing with real-world clinical data to train AI models for diagnostics and drug development. While the company has posted exceptional revenue growth (+89.6% YoY in Q2’25) and guided to its first positive adjusted EBITDA for FY25, we remain bearish.

Our short thesis rests on the following:

- **Capital-intensive, financing-driven model:** H1’25 cash burn of \$61.5M, \$380M+ acquisition spend, and reliance on shelf registration and 2026 convertible debt.
- **Litigation and IP risk:** Guardant Health has sued Tempus twice (2024 and Aug 2025), highlighting weak defensibility of its core technology.
- **Uncertain moat:** Tempus’s data advantage depends on non-exclusive partnerships and reimbursement, both of which are vulnerable.
- **Fragile profitability:** GAAP net losses persist (–\$42.8M in Q2’25). EBITDA breakeven relies on adjustments that exclude real costs.
- **Valuation premium:** Shares trade at levels already baking in optimistic assumptions on growth, execution, and benign litigation outcomes.

We believe risk/reward is asymmetric to the downside and maintain a short bias.

1. First Principles: Value Proposition & Data Flywheel

Thesis: Genomic sequencing + RWD → AI models → improved diagnostics & drug development.

Intended moat: Large dataset builds network effects.

Reality check:

- Data access is negotiated, not exclusive – dependent on hospitals, payors, and research networks.
- Regulatory risk: HIPAA compliance, FDA scrutiny of AI diagnostic tools.
- The flywheel can be replicated by rivals with their own data-sharing agreements.

2. Business Model: Capital Intensity & Dependency

Revenue (Q2'25): \$314.6M (+89.6% YoY).

- Genomics: \$241.8M (~77%, +115% YoY) – low margin, scale-sensitive, reimbursement-dependent.
- Data & Services: ~\$73M (~23%) – higher margin, smaller scale.

Expansion:

- M&A: Ambry Genetics, Deep 6 AI (~\$380.8M H1 outflow).
- Partnerships: Illumina, major hospitals, pharma.

Funding reliance:

- **Shelf registration** (S-3ASR, Aug 2025) provides flexibility for equity/debt issuance.
- \$186.7M convertible note (convertible Mar 2026) → likely dilution.

Conclusion: Business model is asset-heavy, reliant on external capital.

3. Competitive Landscape & Litigation

Key competitors:

- Guardant Health (liquid biopsy), Foundation Medicine (Roche), Natera, Flatiron Health (Roche), PathAI, Deep Lens.

Market dynamics: Winner-takes-most environment in AI/oncology; Tempus is not the clear leader.

Legal risk: Guardant patent suits (2024, Aug 2025) could force costly settlements/design-arounds, undermining defensibility.

Conclusion: Technology overlap + IP fragility weaken Tempus's competitive edge.

4. Balance Sheet & Liquidity

Liquidity (6/30/25): \$291M (cash \$186.3M + securities \$105M).

Cash flow: -\$61.5M from operations in H1'25.

Debt: \$186.7M convertible note due 2026 (equity dilution risk).

Acquisitions: ~\$380M H1 investment outflow.

Conclusion: Tempus is not self-funding; balance sheet reliant on capital markets.

5. Financial Trends

Growth: Q2'25 revenue +89.6% YoY; Genomics +115% YoY.

Losses: Q2'25 net loss -\$42.8M.

Guidance: FY25 revenue ~\$1.26B, adjusted EBITDA +\$5M (first positive).

But:

- GAAP losses continue.
- Adjusted EBITDA excludes stock comp & M&A costs.
- **Profitability fragile; thin margins highly sensitive to reimbursement.**

6. Moat Assessment

Claimed moat: Largest multimodal clinico-genomic dataset, Tempus Next platform, FDA-cleared AI tools.

Weaknesses:

- Data partnerships are non-exclusive and subject to churn.
- AI models are replicable; competitors also scaling datasets.
- Guardant litigation questions IP defensibility.

Conclusion: Moat is overstated; defensibility limited.

7. Innovation & R&D

Acquisition-driven: Ambry Genetics (germline testing), Deep 6 AI (trial matching).
Organic: ECG AI (FDA 510(k) cleared, Jul 2025).

Risk: Overreliance on acquisitions creates complexity and ongoing capital needs.

Conclusion & Short Thesis

Tempus AI is a fast-growing but capital-dependent and litigation-exposed company. While management guides toward adjusted profitability, GAAP losses persist, cash burn continues, and dilution risks loom.

The market is overestimating Tempus's moat and underestimating risks tied to financing, reimbursement, and IP. At a ~\$10B+ valuation, little margin of safety exists.

We maintain a bearish outlook and short bias on TEM.

Disclaimer

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