



Redefining Molecular Diagnostics with Single-Molecule Precision

Oguzhan Atay, PhD | CEO

Our 4 Pillars of Differentiation

Superior tech with 10x better products

Assays that reach
physical limit of
detection

Category-defining
products in prenatal
& oncology

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0 to \$180M ARR in <5 years

>100% YoY growth
in 2024

Hypergrowth backed
by high and increasing
sales efficiency

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margin in prenatal &
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Path to 70%+ gross
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Oncology as the second growth engine

Detecting >50% more
actionable mutations

Precise molecular-level
monitoring for
late-stage cancers

Achieving faster initial
traction than prenatal

PILLAR #1

Superior Tech & 10x Better Products

Existing molecular diagnostics are limited.



LIMITED TO
**chromosomal
changes**

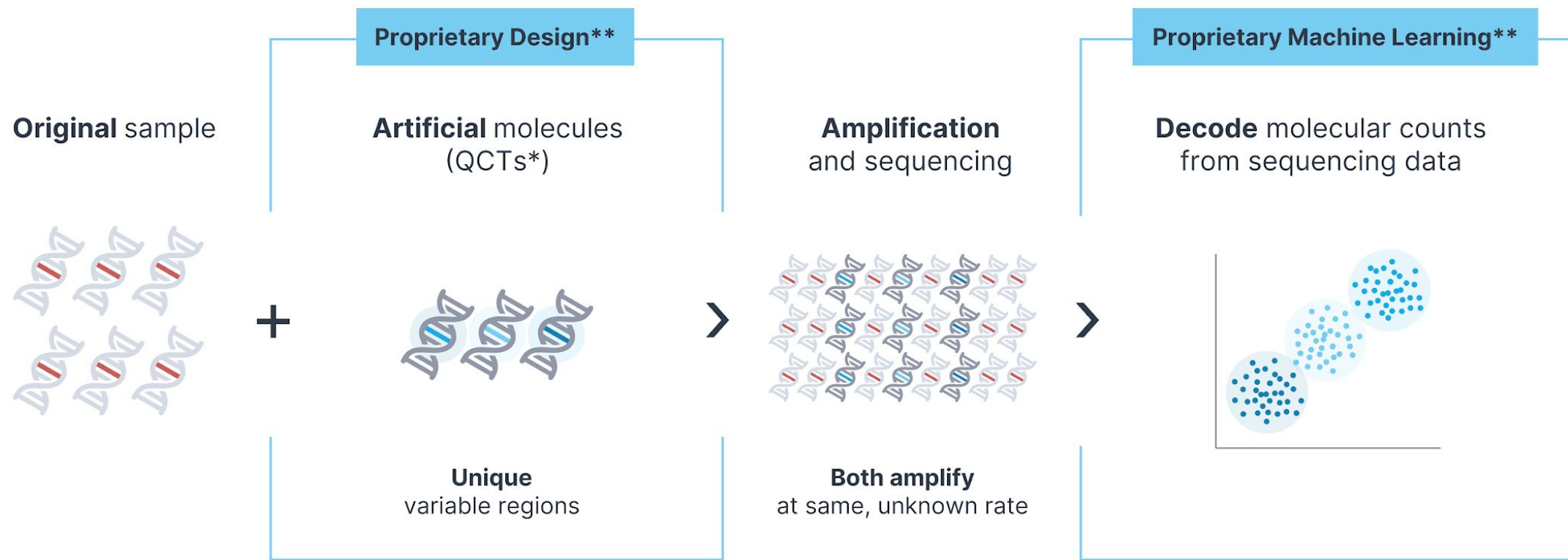
Can only detect
1M+ base pair changes



LIMITED BY
**lower sensitivity &
noisy measurements**

Mutations are missed due
to lack of sensitivity

Our patented molecular counting platform has a single base-pair resolution.



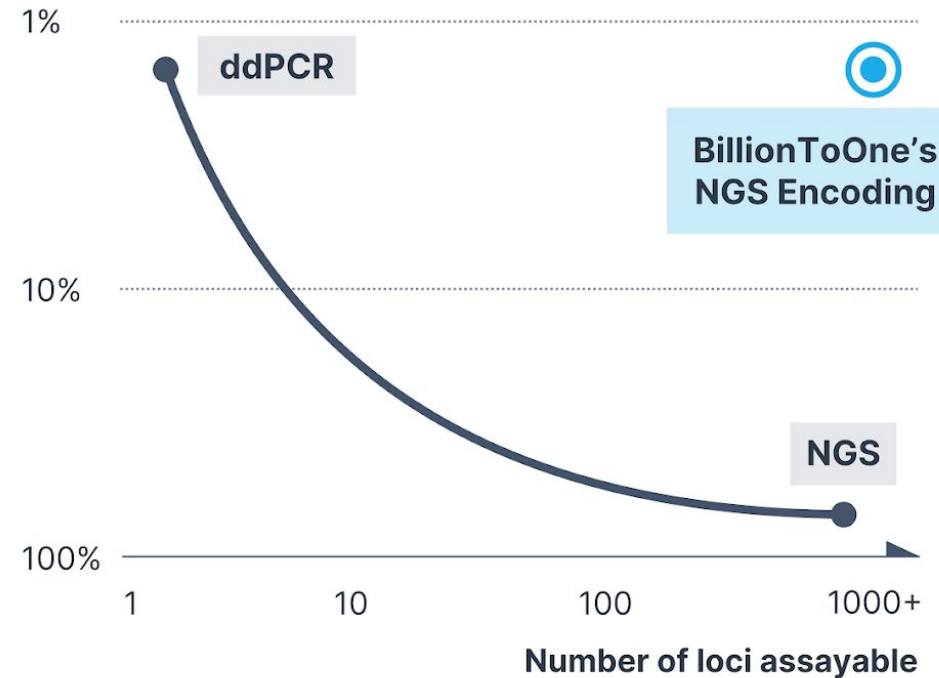
* Quantitative Counting Templates

** multiple issued patents

Pushing technology frontier forward.

ddPCR-level accuracy with NGS multiplex capability.

Precision of measurement



UNITY Screen™
redefines the
category of
non-invasive prenatal
testing (NIPT).



NIPT for recessively inherited conditions requires unprecedented level of resolution.



Aneuploidy
Easiest to detect



Microdeletion
Decreased accuracy

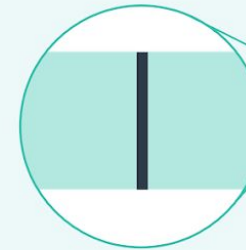
10+ million base pairs — 1+ million base pairs

Conventional Methods

Recessive Conditions

Require physical limit of precision & sensitivity

- Cystic fibrosis
- Spinal muscular atrophy
- Sickle cell disease
- Thalassemias



Single base pairs

Addressable only with **UNITY**

58% of affected pregnancies are missed due to the complexities of conventional screening protocols.



Mother's
DNA Test



Father's
DNA Test

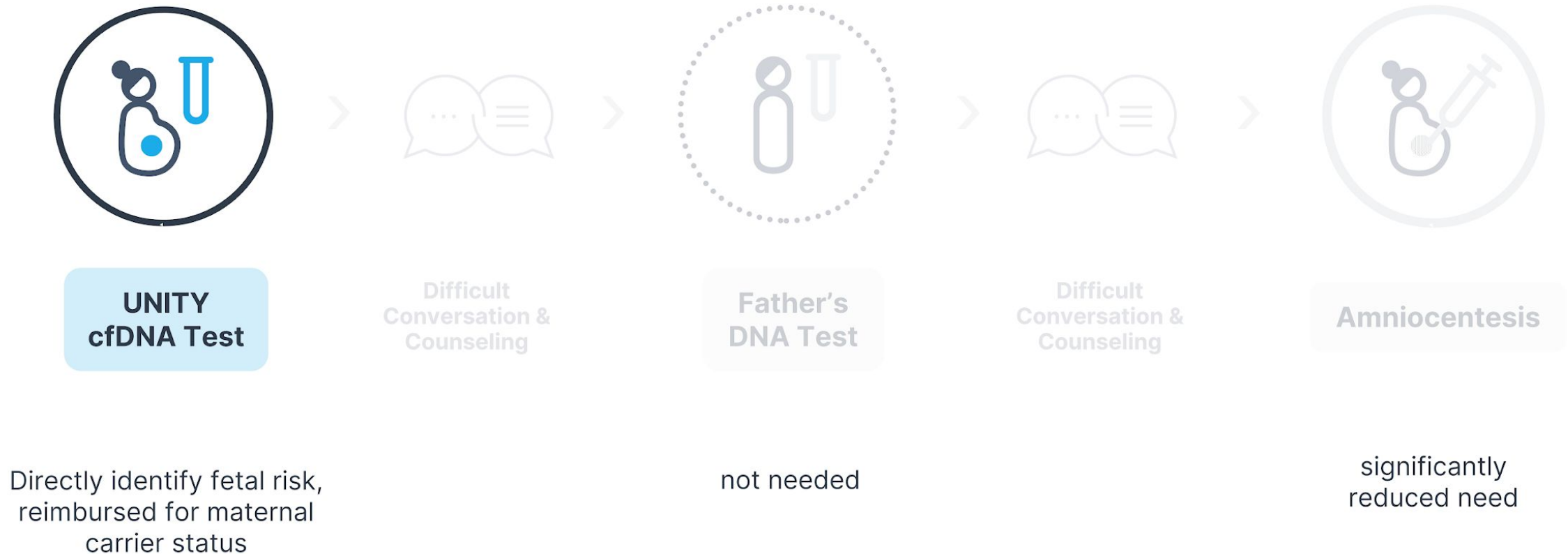


Amniocentesis

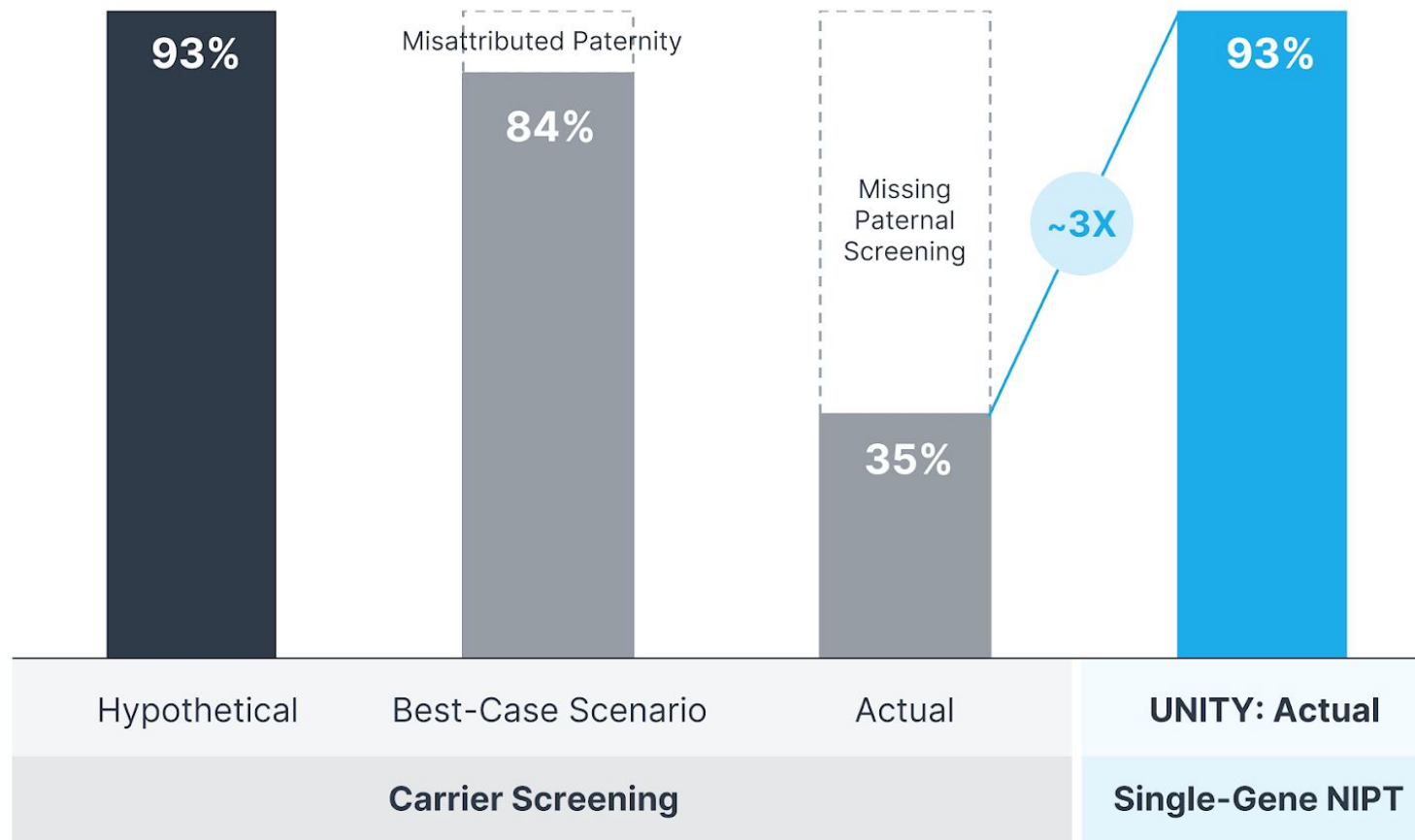
58%
not completed
or unavailable

1 positive case per
4 amniocenteses

A single blood test that reduces follow-up counseling and testing by 90%.



UNITY is becoming the new standard in prenatal care. It detects 3x more affected pregnancies than other methods.



Wynn J, Hoskovec J, Carter RD, Ross MJ, Perni SC. Performance of single-gene noninvasive prenatal testing for autosomal recessive conditions in a general population setting. *Prenat Diagn.* 2023 Sep;43(10):1344-1354. doi: 10.1002/pd.6427. Epub 2023 Sep 6. PMID: 37674263.

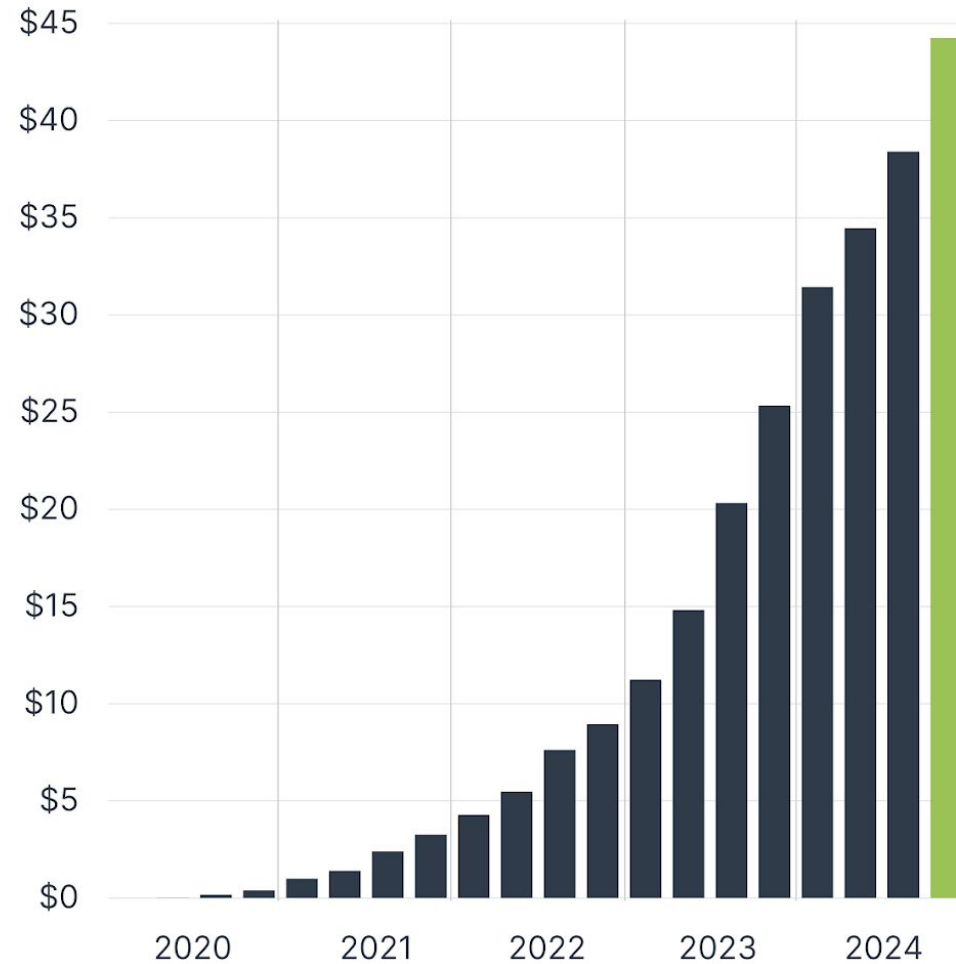
Hoskovec J, Hardisty EE, Talati AN, Carozza JA, Wynn J, Riku S, Ten Bosch JR, Vora NL, Maternal carrier screening with single-gene NIPS provides accurate fetal risk assessments for recessive conditions, *Genetics in Medicine*, 2022, ISSN 1098-3600, <https://doi.org/10.1016>

PILLAR #2

Fast, Repeatable, Efficient Growth

Zero to
~\$180M
ARR in
~5 years.

GAAP Revenue (Millions)



And we're just getting started.

We currently have

~30%

salesforce size
of largest competitor

We are continuing to grow

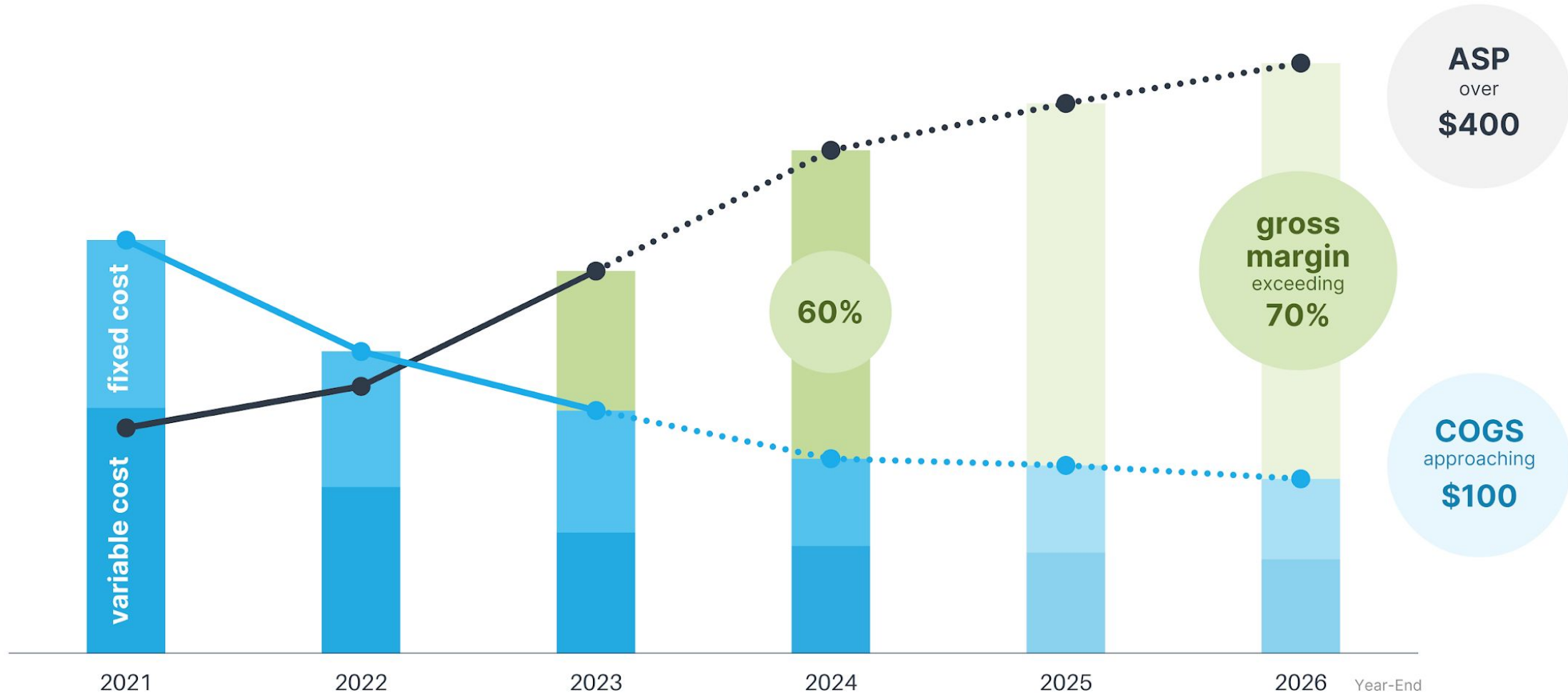
75%+ CAGR

in revenue

PILLAR #3

Increase in ASP & Decrease in COGS

Currently ~60% gross margin & profitable with continuing rapid margin expansion



PILLAR #4

Oncology: Second Growth Engine

We solve oncologists' two most important unmet needs.

What
therapy will
work best?

Therapy Selection

Actionable mutations are missed by liquid biopsy due to lower sensitivity, hindering the further adoption of liquid biopsy.

Is the
therapy
working?

Response Monitoring

Treatment response rate can be low (ex. 20-30% for immunotherapy) and **scan-based** treatment response monitoring is **noisy and a lagging** indicator.

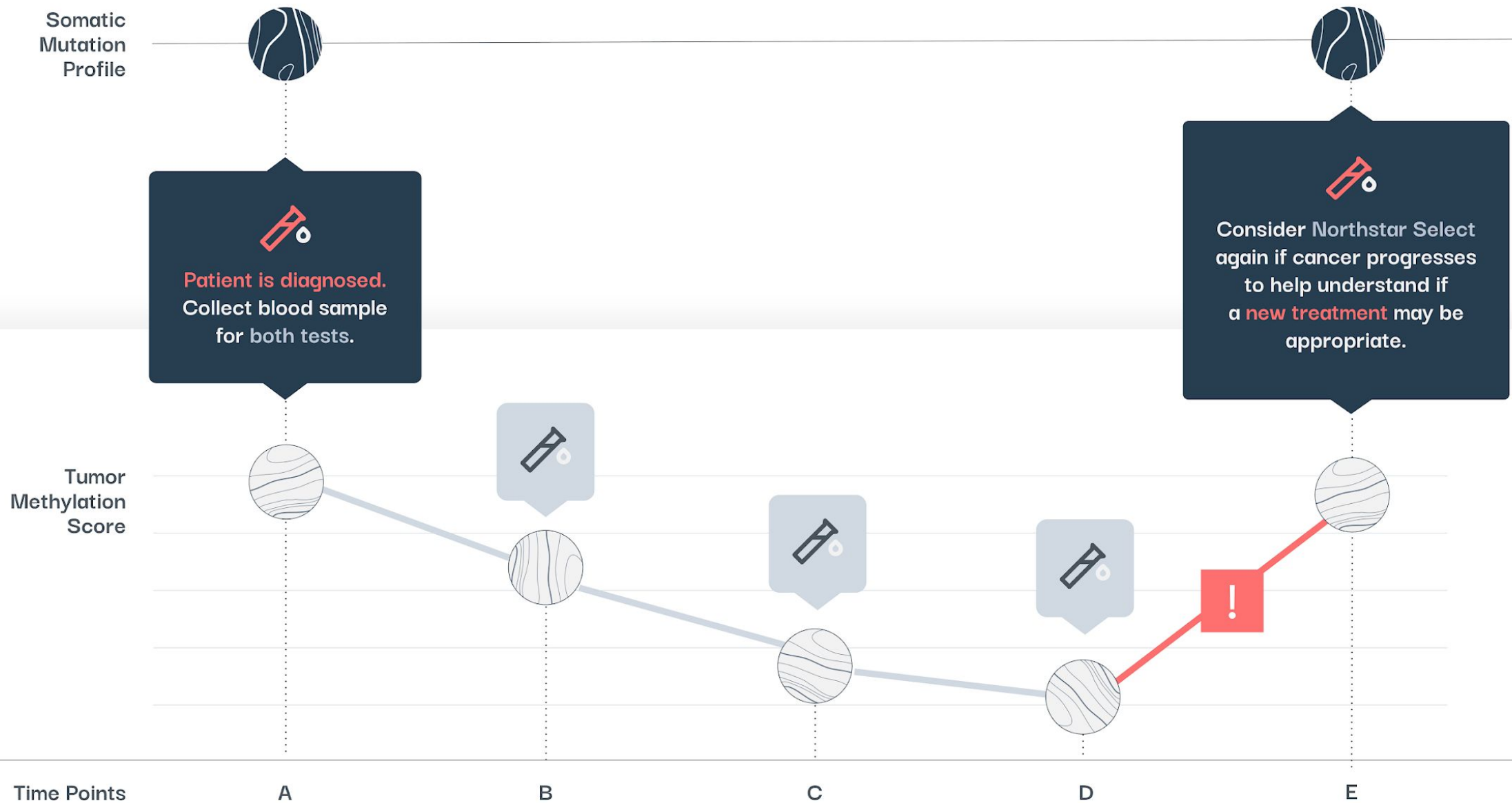


- Comprehensive mutation profiling assay with **expanded copy-number coverage**
- Unprecedentedly **high sensitivity**



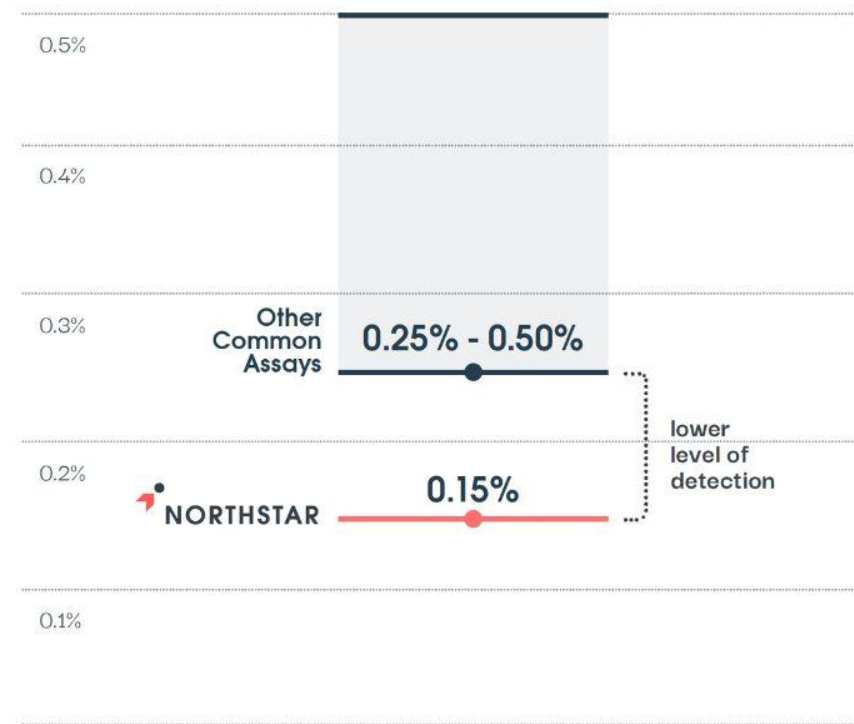
- The only assay that **quantifies methylated ctDNA level**
- **Precise response monitoring** for late-stage cancers, a more challenging problem than MRD

Tissue Free



Northstar Select offers higher sensitivity and **2 to 5x lower LoD** than other liquid biopsy products available*.

SNV

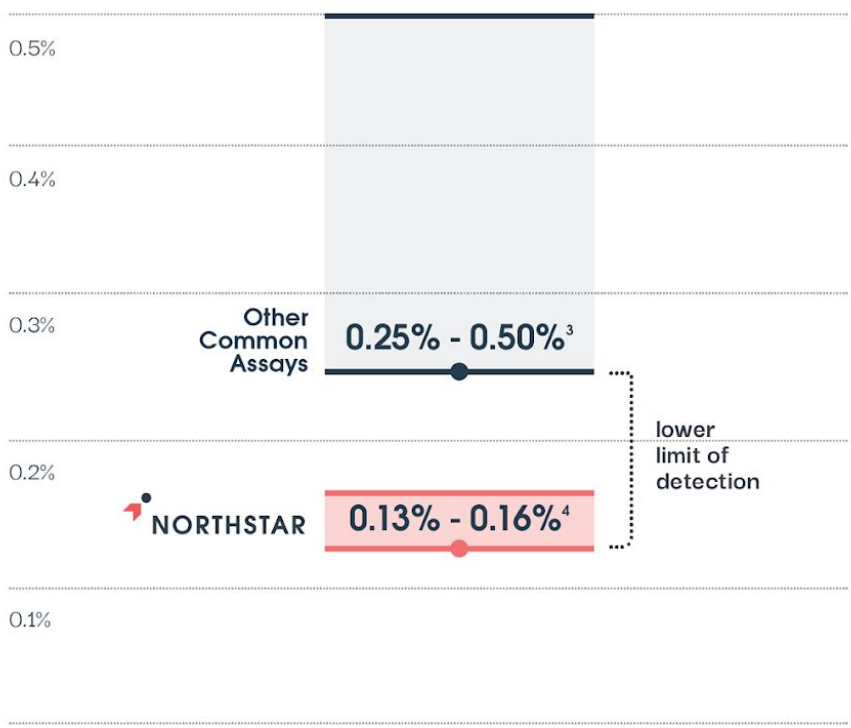


CNV

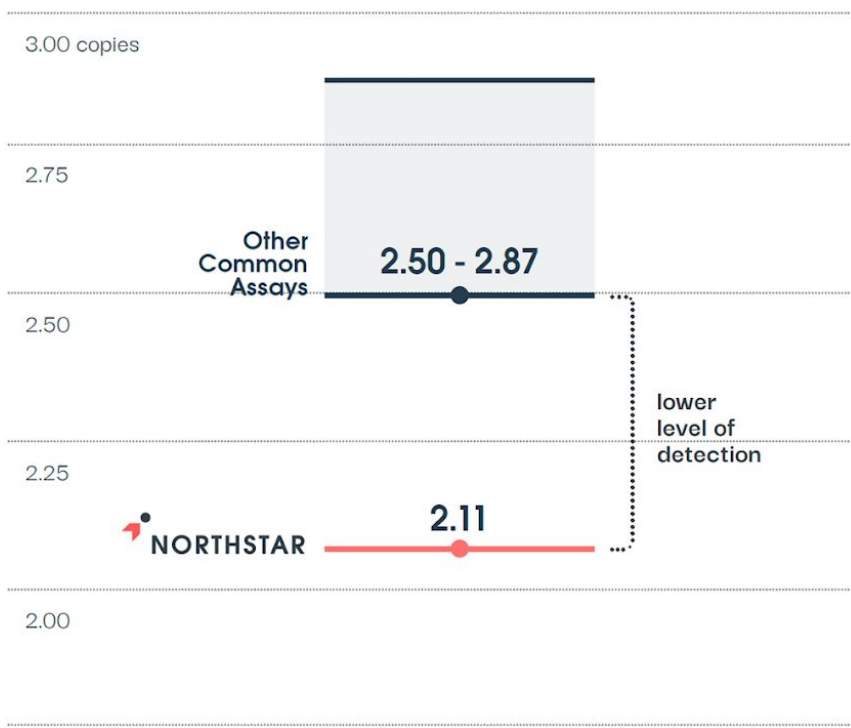


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SNV

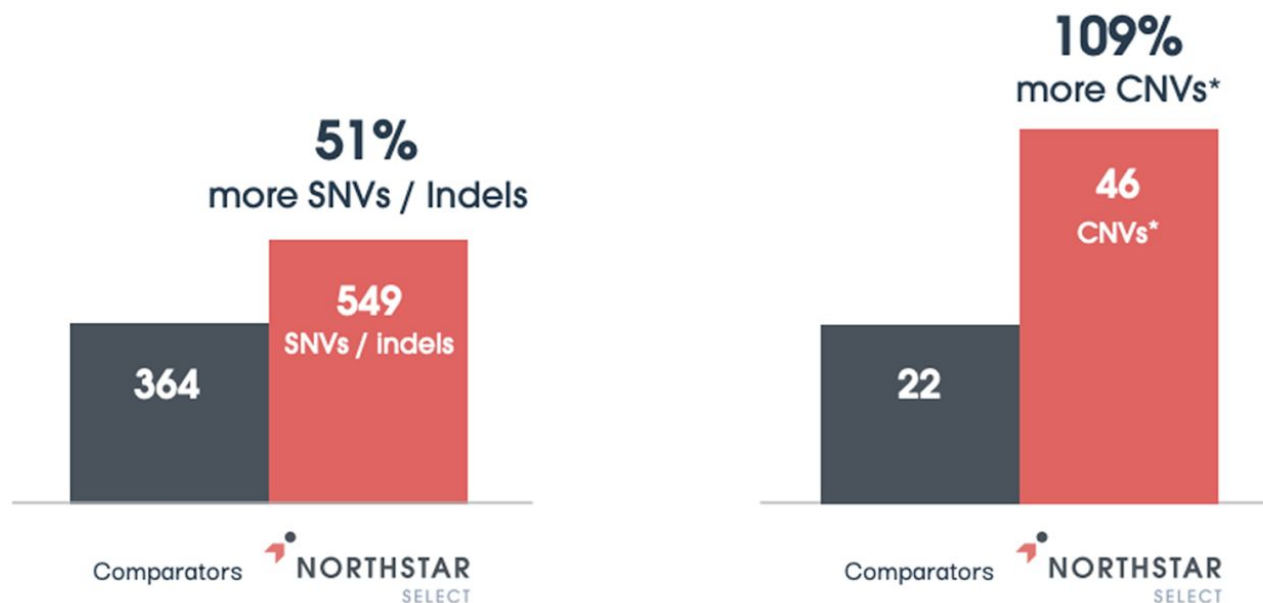


CNV



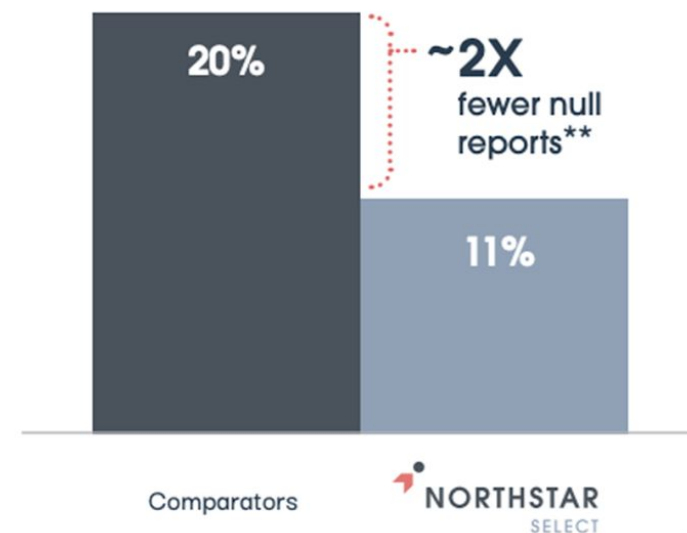
In a head-to-head clinical study, Northstar Select detected **51-109%** more reportable mutations than comparator assays.

Superior Detection Rates for SNVs, Indels and CNVs



Powered by our proprietary QCT (Quantitative Counting Template) technology, Northstar Select identified 51% more actionable SNVs / indels and 109% more CNVs, providing you and your patient more options when it matters most.

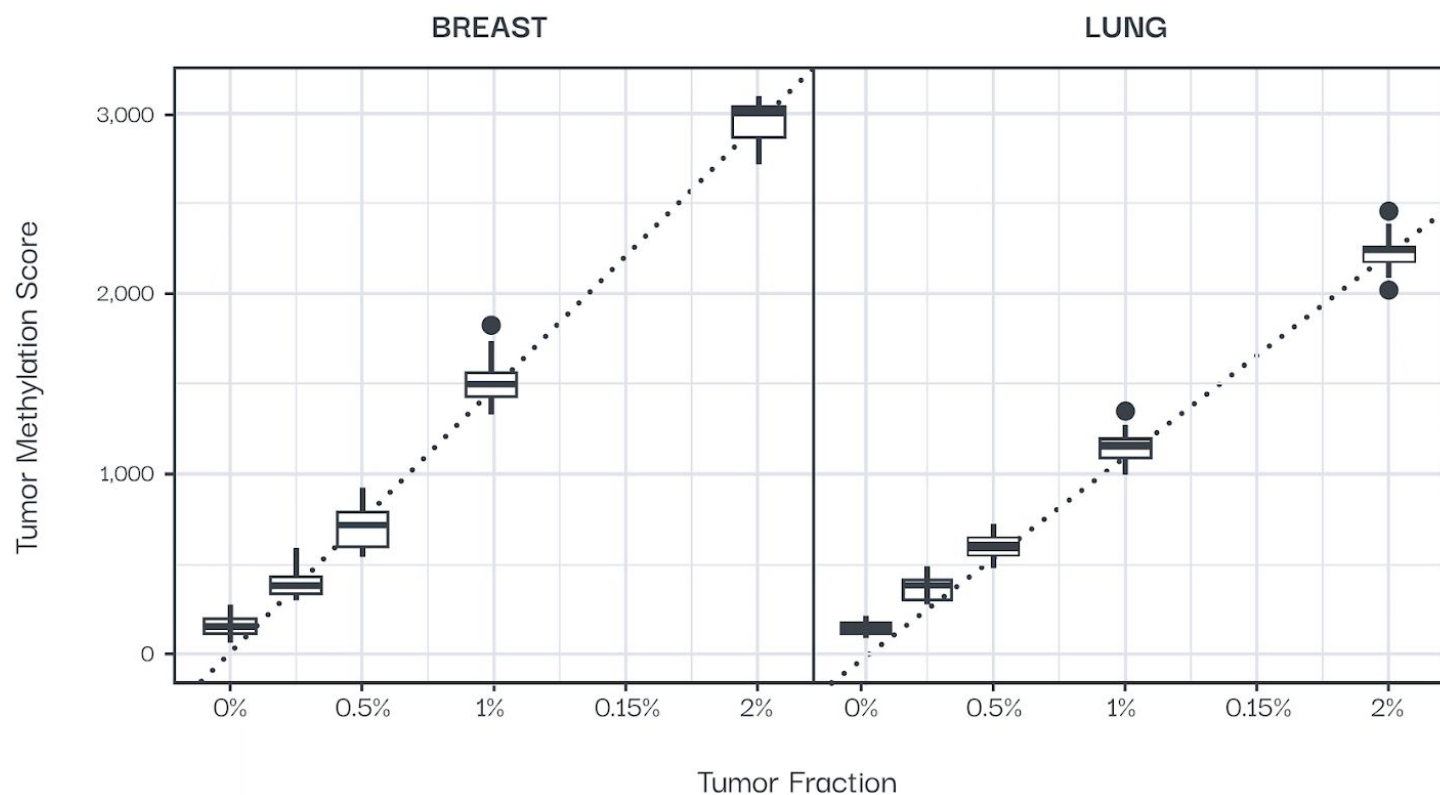
Reduced Null-Reporting



Higher sensitivity reduces your chances of receiving a null report, improving your diagnostic yield.

*Bower et. al., "Clinical validation of Northstar Select, a novel liquid biopsy assay for comprehensive genomic profiling of solid tumors" ASCO 2024

Northstar Response is highly accurate at measuring changes in tumor fraction across **10+ cancer types**.

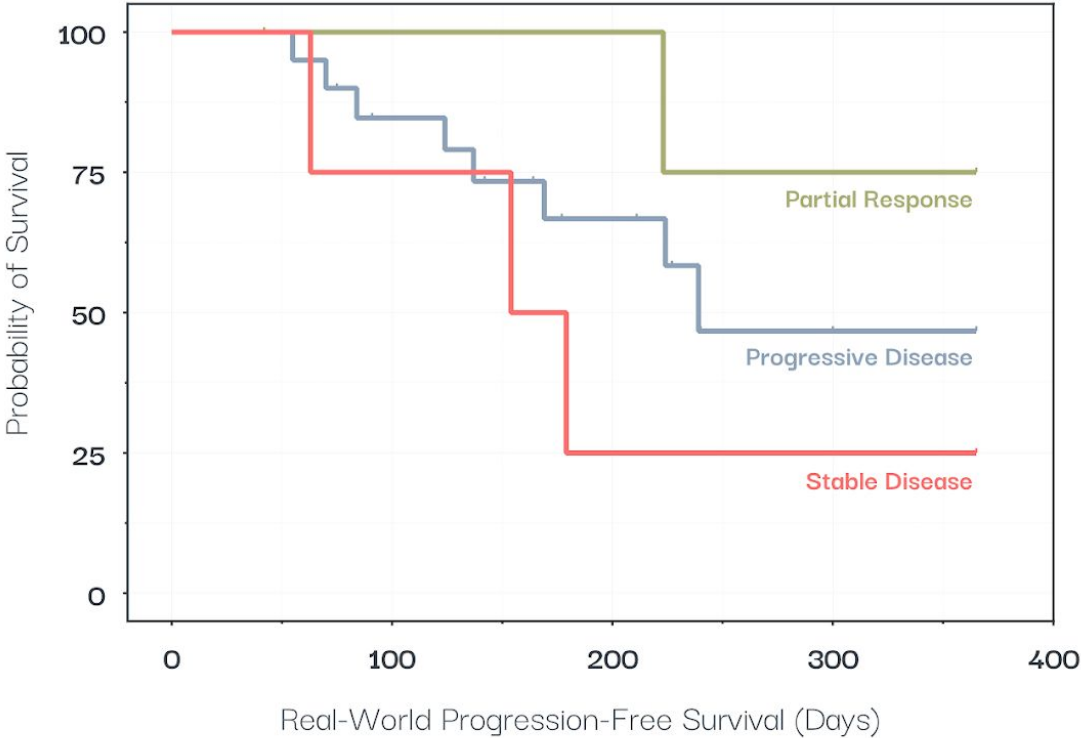


Ye et al. Novel methylation-based, tissue-free ctDNA assay accurately quantifies longitudinal tumor burden changes for precision treatment monitoring.

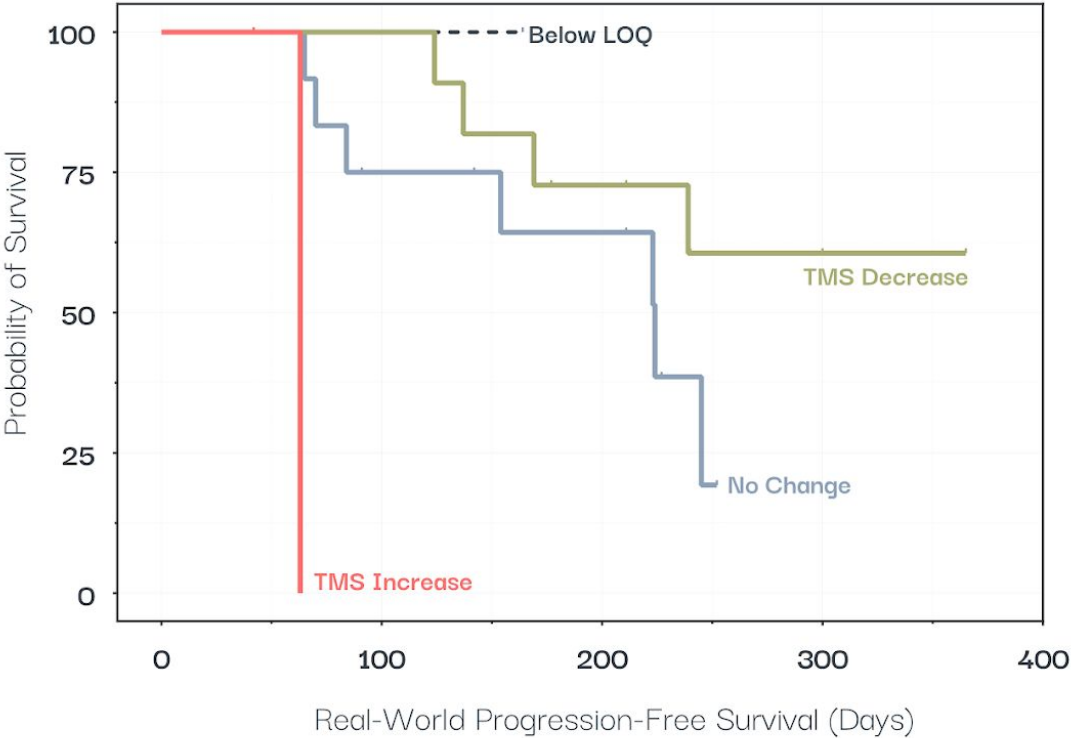
Presented at AACR Annual Meeting 2022

Northstar successfully stratifies immunotherapy outcomes in lung cancer (higher separation than scans).

RECIST Objective Response

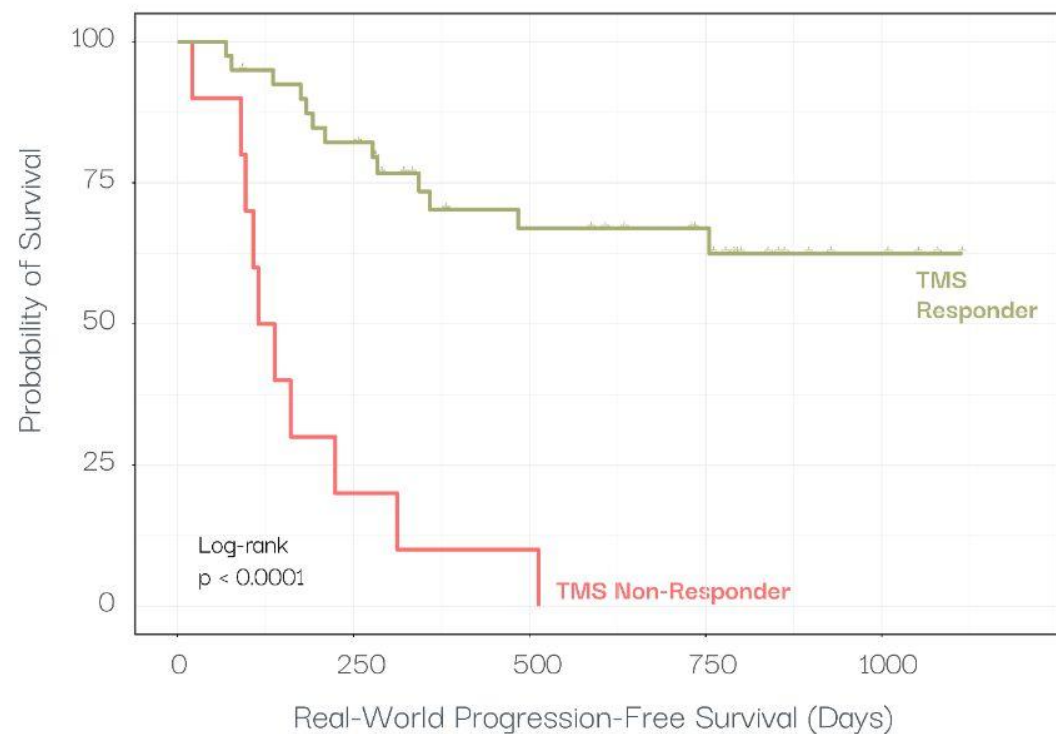


Tumor Methylation Score

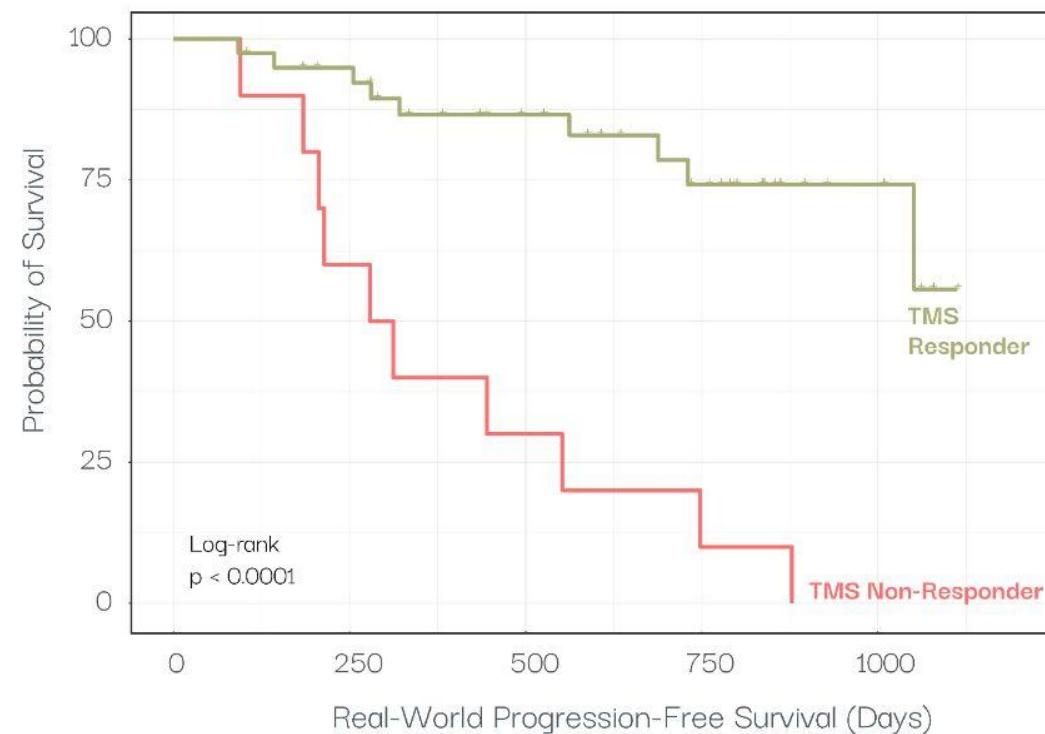


Northstar successfully stratifies all therapy outcomes in pan-cancer cohort in a landmark analysis.

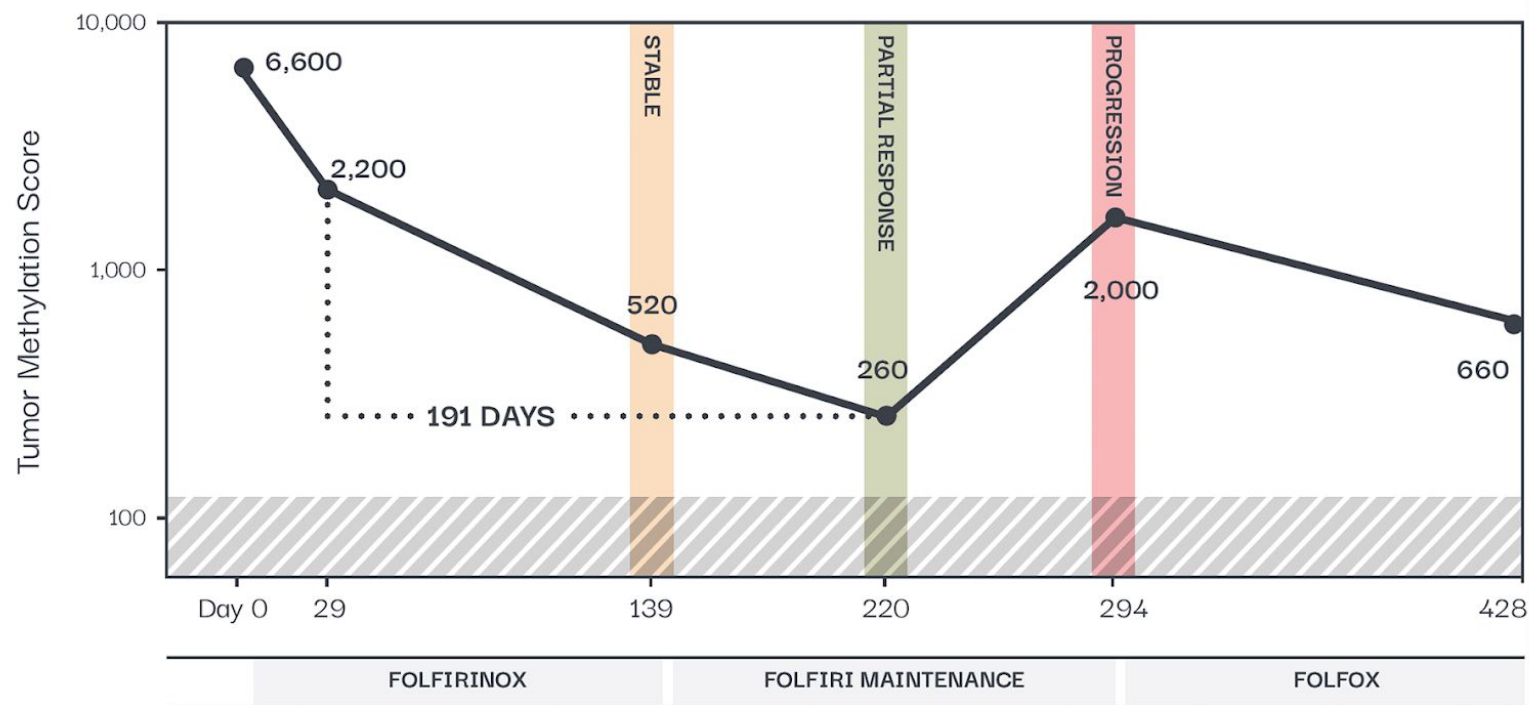
Progression-Free Survival



Overall Survival



Northstar Response detecting partial response 191 days earlier and as well as progression afterward.



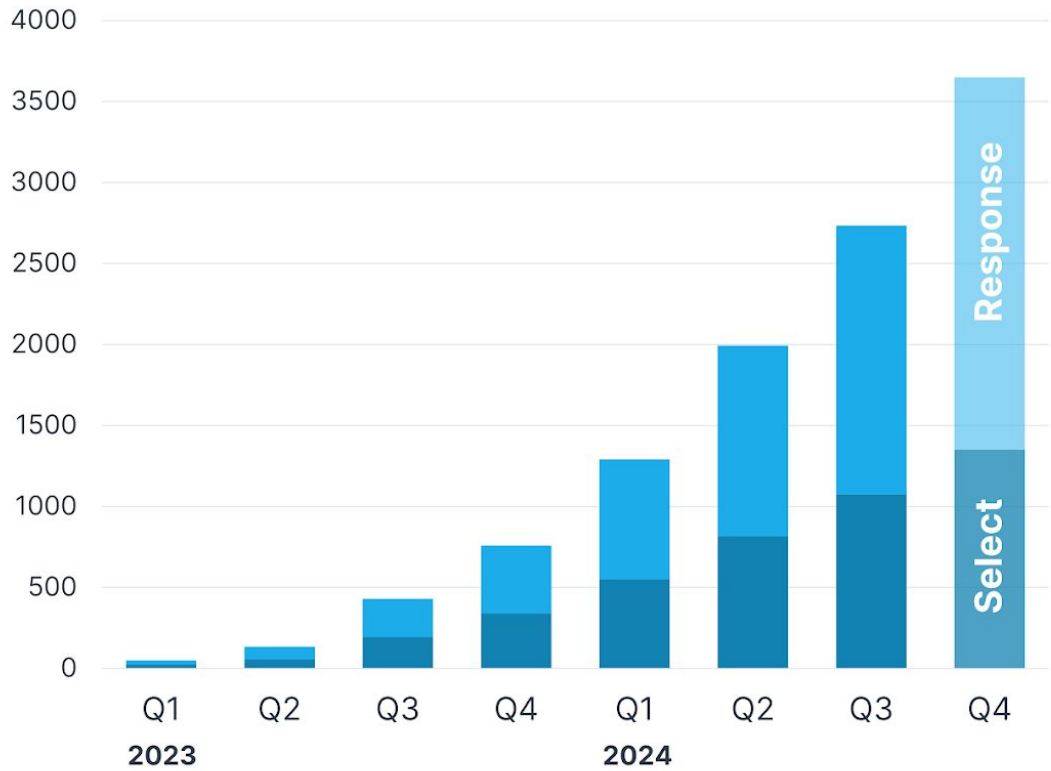
Case Example: Stage IV

Chemotherapy

- folfirinox
- followed by folfiri maintenance
- followed by folfox

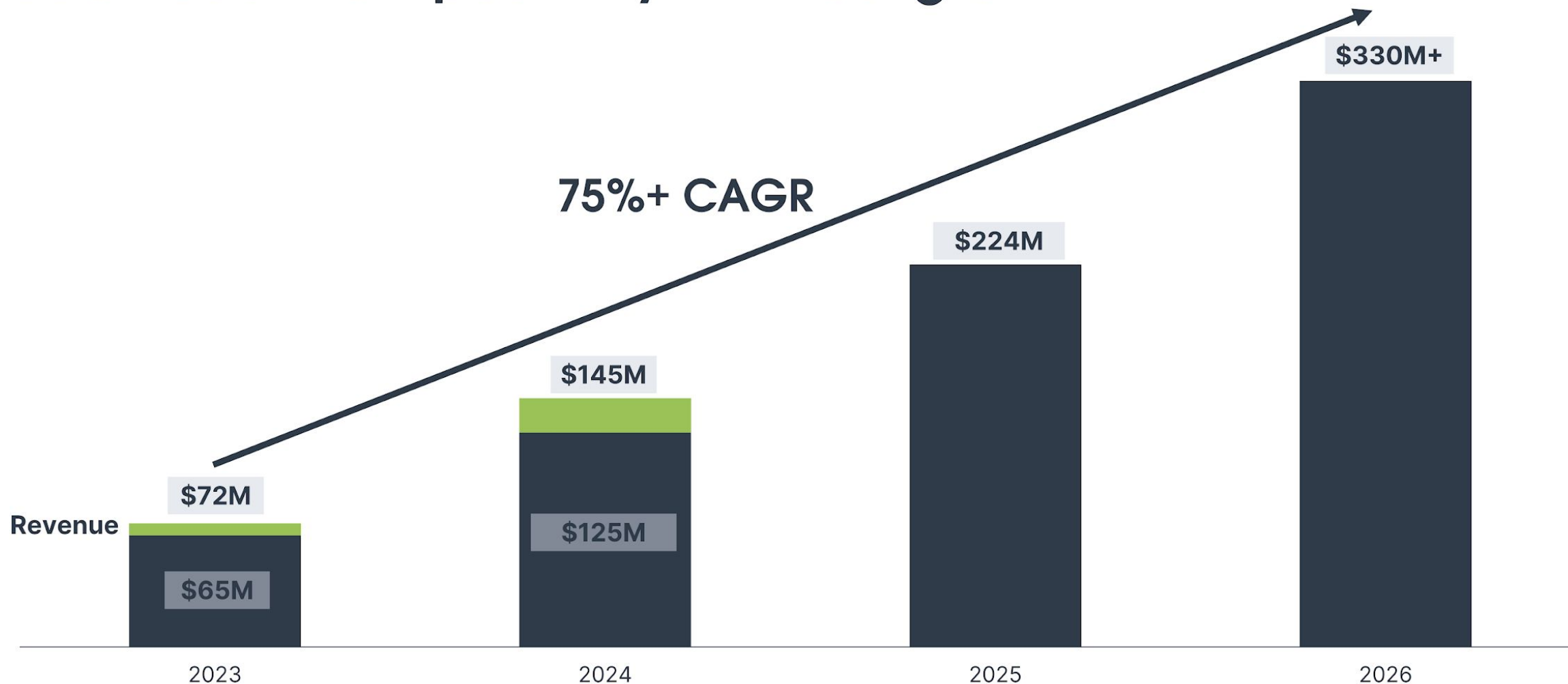
Northstar’s initial commercialization pace is even faster than UNITY.

2023-24 Quarterly Growth (Test Volume)

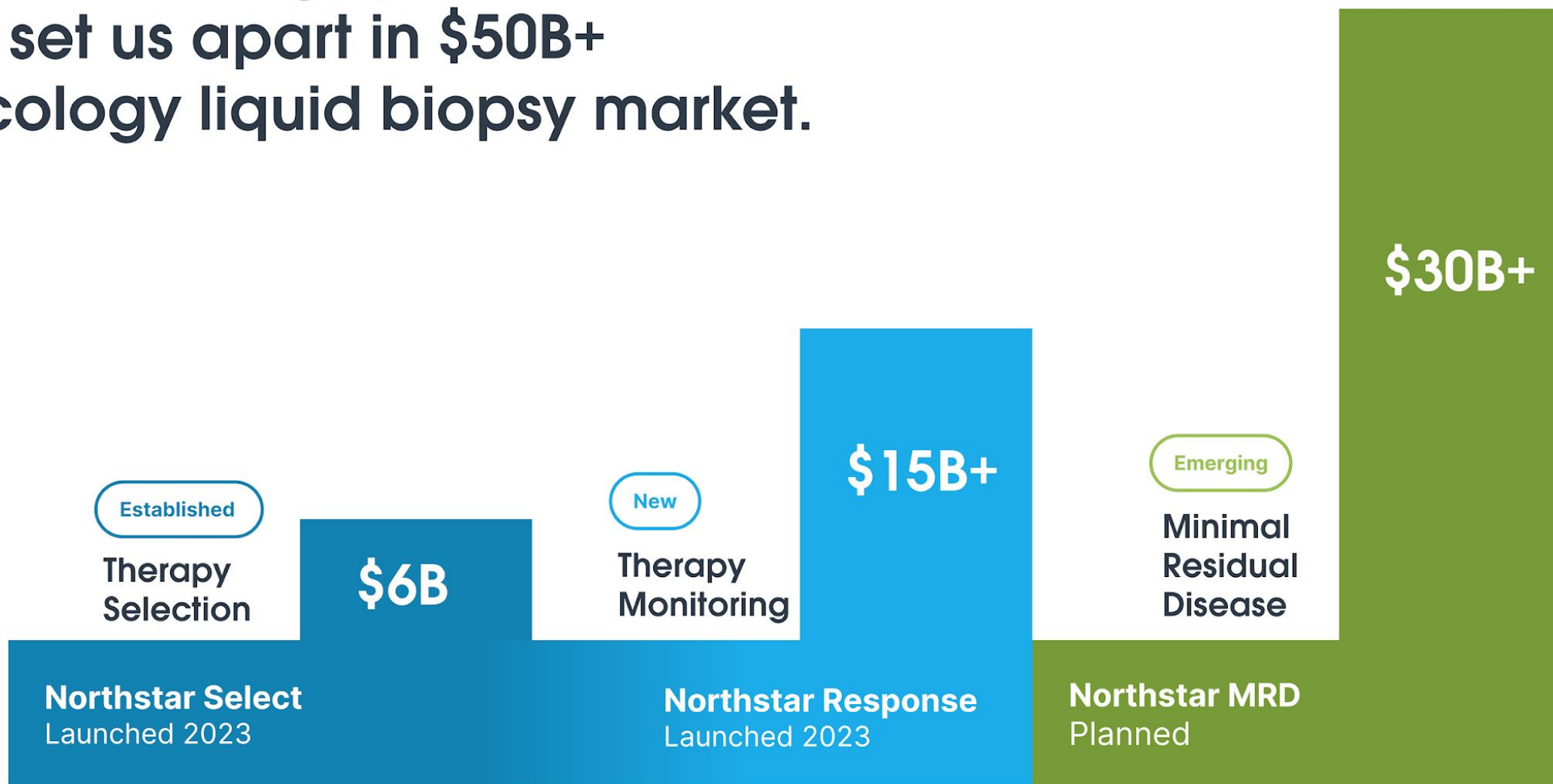


Financials & Future Growth

We do not need any additional capital to reach cash-flow positivity with fast growth



Our technology platform
will set us apart in \$50B+
oncology liquid biopsy market.





Transforming healthcare one molecule at a time, one patient at a time.

- Single-molecule level sensitivity with **single base pair resolution**
- **Exponential growth** in differentiated, low COGS, **high-efficiency** prenatal business
- Applying the proven tech to the same technical problems in **oncology** with **fast initial traction**
- Long-term goal: to build a **category-defining company** and enter S&P 500



Thank you

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